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UNESCO

TO OPEN THE DOOR OF PROGRESS to 1,000 million illiterates (one half of mankind) Unesco has inaugurated its first regional fundamental education centre at Patzcuaro, Mexico. For a report by our special correspondent, see page 7.

Courier

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UNESCO'S 6TH GENERAL CONFERENCE

"We work for tomorrow, but tomorrow begins today"

"IT is for tomorrow that we are working, but tomorrow begins today." Under this emblem of urgency, the official government representatives of 59 nations will gather together in Paris from June 18 to July 12 to decide on Unesco's course of action for the months to come.

This is the sixth time that delegates will be meeting at a Unesco General Conference. But 1951 is a critical year in which threats of war call more than ever before for co-operative international effort to help construct and guard intact the living fabric of world peace.

Conscious of these pressing requirements, the Executive Board of Unesco has drawn up a new draft programme for submission to the General Conference. It is a programme conceived not in terms of Unesco's theoretical potentialities but in the light of the practical experience of trial and searching gained in recent years. It is a programme that has been scaled down to permit concentration on a number of major practical problems facing the peoples of the world today in education, science and culture. (The 1951 programme contained 294 resolutions; the new draft programme has reduced these by 50 per cent.)

Ignorance is one of the deeplying causes of conflict and war. Lack of fundamental knowledge for living breeds poverty, disease, under-nourishment and with these despair and violence. Perhaps the boldest and most far-reaching new proposal to be placed before delegates at the 6th General Conference will be a special $20 million, 12-year project for launching a world-wide campaign against ignorance and low standards of living. It has been called "the great campaign of men against their common enemy". (For details see pages 6 to 11 of this issue.)

Enemies of the fundamental rights of men and women must resort to oppression which ultimately results in friction and conflict. The widest of the central themes running through the proposed 1952 programme is therefore action in the service of Human Rights. Thus, for example, the conference will be asked to approve new plans first for making these rights more widely known and understood by the peoples of the world. Specific projects, too, will be considered for studying methods of reducing racial discrimination; for an agreement to lift barriers to the free movement between countries of persons travelling for educational, scientific and cultural purposes; and for promoting the effective application of free and compulsory education as set forth in Article 26 of the Universal Declaration of Human Rights.

Three groups of peoples have a special claim to attention in the modern world. They are the workers, women and young people; and special efforts on their behalf dominate the proposed Unesco programme for 1952.

To take one example, the many problems of men and women workers are the focal point of the new adult education programme. One project calls for the establishment in 1952 of an international centre for improving workers' educational methods and for training specialists in this field. The proposed centre which is to be set up in co-operation with international trade unions, will also organize courses for workers, laying special stress on understanding among peoples of the world and the necessity of international co-operation within the framework of the United Nations.

In addition, Unesco has been working on a broad programme for extending fellowship and travel opportunities for workers. In 1952 individual and group travel grants for them to study abroad are to be arranged through workers' organizations in different countries.

In the same way as for workers, the 1952 programme includes fellowship projects specially designed for young persons, and programmes in every department of Unesco for practical work to be done by young people, outside of school, through youth movements, voluntary work camps, science clubs, etc.

Working for the improvement of the status of women, Unesco will accentuate in 1952 ways of providing them with greater access to education and practical suggestions for the education of women everywhere for world citizen-ship.

The above examples are intended to convey only an idea of some of the practical themes which Unesco proposes to develop in 1952. There are of course others which are equally important and urgent. No mention, for example, has been made of the technical assistance plan for economic development in which Unesco is already providing and will continue to provide practical help to remedy inequalities of opportunity and means in education, science and culture, which today hamper under-developed countries. Mention should be made, too, of projects proposed for 1952 for increasing Unesco's campaign to teach and explain the principles of collective security and the contribution of the United Nations to peace.

In general, it can be said that in the 1952 programme to be submitted this month for approval by the General Conference, projects of academic interest have been sacrificed to those which have a direct or indirect effect upon present-day world problems and the programme has been given more practical direction throughout.

AN IMPORTANT NOTICE TO ALL OUR READERS

The letters that you send us from all over the world convince us that the "COURIER" is answering a definite need. Many of you write to tell us how much you enjoy reading the "COURIER", that you use it in your discussion groups or that you pass each copy on to a friend or relative.

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A NEW X-RAY MACHINE, developed by Dr. Russell H. Morgan (white coat, earphones) of Johns Hopkins Hospital, shows the chest cavity of a patient injured while at work in a factory. Doctors in Chicago and New York examined chest images of the patient which were televised from Baltimore, and held a three-way consultation by radio.

A FAMILY LOOKS ON. Chest cavity of injured workman as it looked to doctors in three cities and to the audience watching the programme. On the television screen they can see the ribs of the patient, and the pieces of steel fragments that struck him in the back when a grinding wheel flew apart in the Baltimore factory where he works.

TELEVISION EXPLAINS SCIENCE TO 15,000,000 AMERICANS

THREE years ago a group of us at the Johns Hopkins University put the finishing touches on a plan originally conceived in 1946. We were about to televise a science programme which would carry scientific demonstrations to the few Baltimoreans who owned television sets in March, 1948.

That first programme, carried by the newly-erected station WMAR-TV was the beginning of The Johns Hopkins Science Review, a weekly half-hour showing of current developments in many fields of science. It was one of the first programmes televised by an American university on a regular weekly schedule. It is the only one today which can be viewed by more than 15,000,000 people in many cities on a network.

On that day in 1948, Professor Franco Rassetti, once the colleague of atomic physicist Enrico Fermi in Italy, stepped before the television cameras, set up on the Hopkins campus, to demonstrate a few fundamental facts about nuclear physics.

That first experiment with television as an educational medium went almost unnoticed. But we had faith in our belief that the public should be informed about developments in science, that the public is eager for such information. We were confident then that our programme would one day serve the entire United States. Today, we hope that it will prove to be another link in the chain between the family of nations welded together in Unesco.

Since March, 1948, the Science Review has grown in quality, and has won national recognition. Each Tuesday night from September to June, the programme originates in the studios of WAAM, Baltimore, and is carried over the DuMont Network as far west as Chicago.

First Need - Simplicity

LOOKING back today on the winter début of the Science Review, we realize how little we knew about the tecnnical and production problems of the infant medium. There were no books or treatises on the techniques of telecasting scientific demonstrations. This was fortunate, perhaps, in that it meant meeting the challenge and learning for ourselves, doing the basic research on television programming of this type.

All through the initial stages of The Johns Hopkins Science Review, we struggled with important problems of presentation : How to impart scientific information in such a manner that it would be understandable to the lay-audience. This audience knew little about science, therefore the programmes had to be simple. Yet we could not insult our viewers by talking down to them, treating them as uneducated children.

We have delved into many realms of science, each one presenting its own special television problem. How, for instance, to show viewers seated comfortably at home the spectacle of micro-organisms darting about in polluted water? This we had to do in order to present a programme on sanitary engineering.

At another time, hours were spent working out the mechanics of stimulating the path of air waves as they struck the wings of planes in flight at supersonic speeds. Otherwise, the average viewer could not fathom the latest developments in aeronautics, developments heralding the passenger flights of tomorrow.

by Lynn Poole

Televising A Heart

WE learned early at Hopkins that we must simplify the language of the scientists who are the principal performers on the Science Review. Wherever possible, we substitute a simple synonym for a technical word unfamiliar to viewers.

By relating the facts to the viewer's daily life, one can select intricate, even nebulous, scientific experiments and explain them in a manner intensely interesting to the layman.

Gradually, a format has evolved wherein verbal explanations comprise a mere background accompaniment for visual demonstrations. Our cardinal rule : "If you can't show it, don't talk about it for more than a minute." This rule is responsible in large part for the Science Review's rapid pace, for holding its viewers from week to week, and for consistently enlarging its audience.

A Science Review programme on X-Rays can be cited as an example. The theme was the introduction of a revolutionary new X-ray machine developed by Dr. Russell H. Morgan, of the Johns Hopkins Hospital. The machine enables the diagnostician to peer into the interior of a patient and watch his organs in action, without having to adapt his eyes to the conventional fluoroscope.

The moderator introduced the theme. The "old-fashioned" fluoroscope was demonstrated on a white-robed patient. An ordinary X-ray machine taking a negative was shown, with viewers watching the negative on a viewbox and hearing a discussion of its advantages and drawbacks. Then the new X-ray machine was introduced, allowing the audience to see a patient's heart beating. The climax was reached when the cameras showed an injured factory worker who had been brought to the hospital with steel splinters in his chest. Telephone lines brought in the voices of a doctor in Chicago, another in New York. As they consulted with physicians in Baltimore, the men in Chicago and New York were sitting before television screens viewing the patient's chest cavity.

Aeronautics To Zoology

THE programme has given viewers an opportunity to look over the shoulders of many men of science and to see and understand current investigations in every realm of science, from aeronautics to zoology.

Two questions are often asked of Johns Hopkins personnel: Why are you expending nearly 200 man hours each week on this programme ? How are you able to present this programme on a television network ?

To the first question, we answer : We believe we have a duty to our public to utilize this new medium to disseminate knowledge beyond the confines of classroom and campus. The swift development of science in the past 25 years has been confusing to many people. By presenting science programmes, explaining current developments, and showing how these developments affect us individually, we believe we can eliminate some of the confusion, allay many of the fears.

It is a pleasure to answer the second question. We are able to present the Science Review on a network because of the magnificent co-operation by the University, television station WAAM, and the DuMont Network. A staff of two at Hopkins prepares and writes each programme, and secures the demonstration equipment as well as the scientists who perform the demonstration.

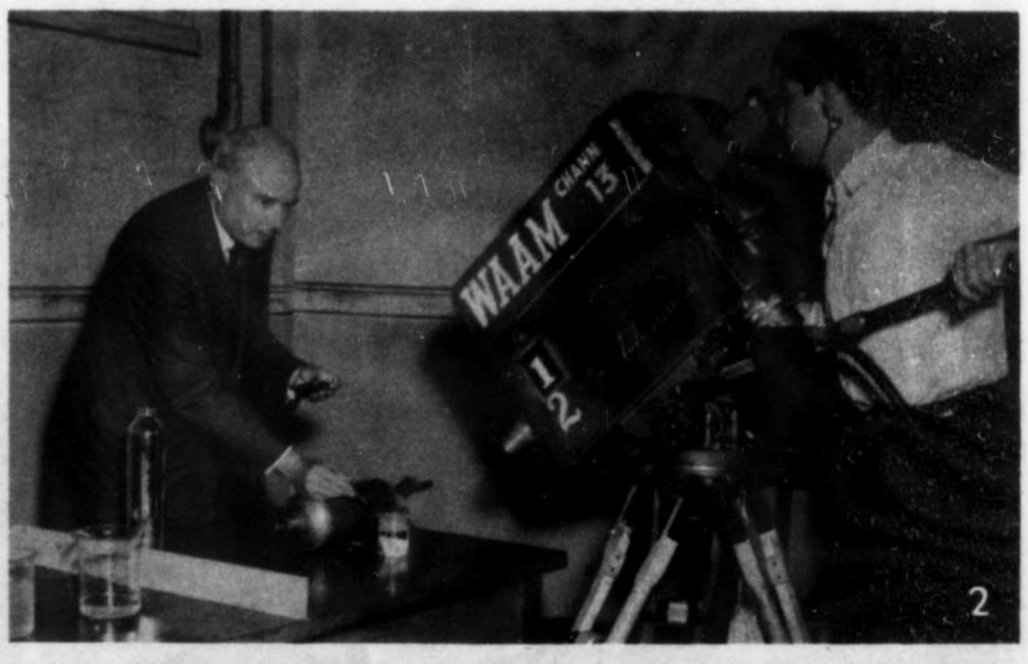
Station WAAM furnishes studio space, a producer free of charge to work with the University staff, and all studio facilities. DuMont provides the network transmission without cost to Johns Hopkins. Both WAAM and DuMont provide these facilities as part of their public service commitment to the people of the United States.

In addition, the University offers the only U.S. award for the best original half-hour television drama each year, in the hope that Hopkins might play its part in encouraging original thinking and writing in the television field.

This writer envisages the day when filmed recordings of educational programmes can be exchanged between Unesco member nations. These recordings, known as kinescopes or teletranscriptions in the United States, can be televised for the edification of peoples throughout the world.

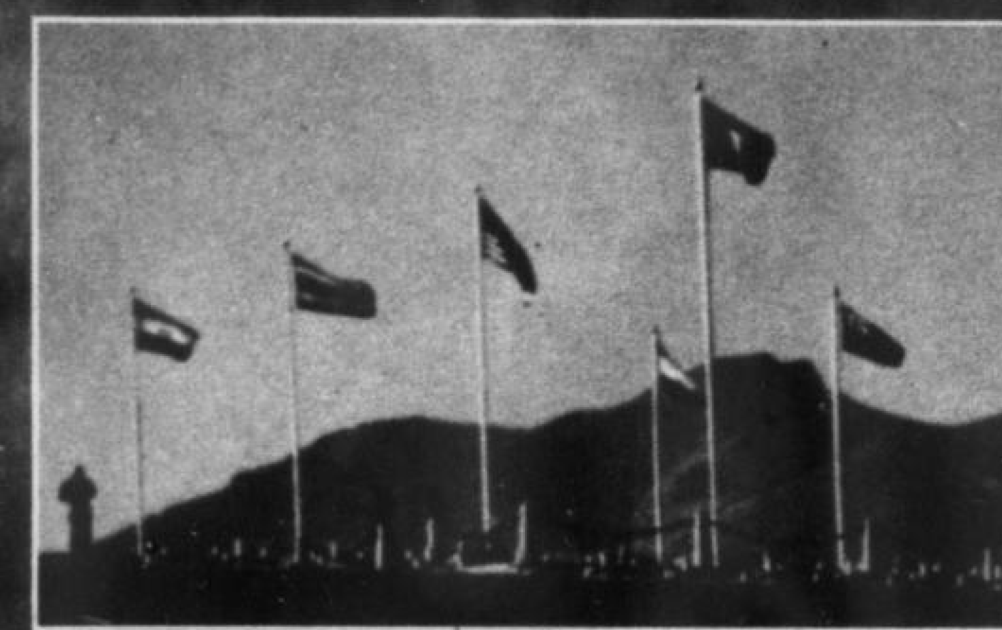
It is further hoped that those interested in, and responsible for, educational television in Unesco member countries will meet to exchange ideas and problems — to aim at eventual coordination for the use of television as an instrument of understanding among the free nations of the world.

EDITOR'S NOTE : Mr. Lynn Poole originated and still produces the Johns Hopkins Science Review *which is regarded as the outstanding educational television programme in the United States. He has asked the editor to annonce that he will be happy to send free copies of scripts to those interested. Please write to Mr. Poole, Johns Hopkins University, Baltimore, Maryland, U.S.A.*



1 This was a demonstration of what fear is, and what happens inside the body of a frightened person. Dr. Robert A. McCleary, of Johns Hopkins, has placed a laboratory animal in water to frighten him. Later the animal was removed, and a sample of its blood was placed under the microscope so that the audience could see the changes which had taken place in it. 2 Dr. Donald H. Andrews, director of low temperature research at Johns Hopkins, demonstrates the balometer, which he invented. In this programme the audience was shown that when atoms are slowed down, cold is produced. When they are speeded up, heat results. The balometer enables the operator to see in the dark. It will pick up the heat radiated by the body of a man a mile away and show his outline.

ONE YEAR AGO THIS MONTH THE NATIONS UNITED TO DEFEND COLLECTIVE SECURITY



EVERY morning [illegible] we are [illegible] daily newspapers [illegible] our [illegible] and [illegible] the [illegible] Peace? War?

For we live in a world of tragic paradox. The genius of man has [illegible] as the promise of an incomparably better life. Yet we also discern the warning signals of a catastrophe which could destroy all progress and plunge our world into a new age of darkness.

Is it surprising, therefore, that we long for a life free from fear? For we realize today more than ever that this is the primary need of all peoples, and that security which is a condition for freedom from fear is the goal towards which we all must work.

But how are we to succeed in our search for security? Not, as two world wars in less than half a century have shown, through the rule of force. For what meaning would victory have in the face of the devastation wrought by the terrifying perfection of modern armaments?

The simple fact is that peace must be based on international law or there will be no true and lasting peace. Has not history shown us the path of collective action which has spread from family to tribe, from city to province, then from nation to nation, until entire continents could live under the rule of law? It is for us to extend its sway over all the world. To retreat would be to admit that disaster is inevitable, or rather, to render it so by our own actions.

Collective security is not a dream; it exists. It exists as a living reality; it exists in the United Nations which was established by the co-operative effort of the sovereign nations of the world and it possesses the means to enforce respect for international law when it is violated.

It is true that the prestige of the United Nations has not in itself been enough to discourage all attempts at conquest. Thus, exactly one year ago this month and barely five years after the cease-fire of the last war, the world was suddenly faced with an act of aggression in Korea.

In the early days of the invasion of South Korea, following the refusal of North Korea to withdraw its troops, the Security Council of the United Nations on June 27 1950 recommended to its members that they "furnish such assistance to the Republic [illegible] as may be necessary to repel the armed attack and to restore international peace and security in the area." By the following month [illegible] and [illegible] pledging military [illegible] or medical assistance. [illegible] majority of countries realized that peace is indivisible, that an act of aggression anywhere in the world is a threat to the whole world.

To this international action Unesco gave its full support within the framework of its competence. In August, in answer to the appeal of the Economic and Social Council, the Executive Board of Unesco decided to take steps to fulfil the "constructive role" called for by the United Nations. Unesco is prepared to carry out educational assistance in Korea and is ready to co-operate with the United Nations Korean Reconstruction Agency in the eventual reconstruction of the country's educational facilities, as soon as it is called upon to do so by the Unified Command. Unesco has already had wide experience in such work during the past five years in countries devastated by the second world war.

Unesco has yet another task to fulfil in the field of education. It is to explain and make widely known the principles of collective security as the indispensable condition of peace under law. Unesco is therefore carrying out a special educational programme which includes the preparation of pamphlets, wall charts and other written and visual materials on the question of collective security. Produced in different languages, these are being distributed in Unesco's Member States for use by schools, universities, and adult education groups. The wall-charts, designed and produced by the Bureau of Current Affairs in the United Kingdom, form a compact and colourful unit for display in school classrooms, community centres, youth clubs and factories. Three studies on the subject of collective security directed primarily to people at the college and university level have been commissioned from Dr. Andrew Martin, international lawyer and lecturer at Ruskin College, Oxford; Prof. Georges Scelle of the University of Paris; and H. E. Antonio Castro Leal, head of the Mexican delegation to Unesco. They explain the meaning of collective security in the light of the United Nations action which Unesco hopes will help create a powerful and enlightened force of public opinion in support of the world organization.

Dr. Martin puts the essential problem like this: "Our present system of collective security was built on the assumption that the principal allies of the second World War would [illegible] for the peace at least a fraction of [illegible] goodwill and readiness to [illegible] which made them victorious. That assumption has proved to be over-optimistic. But there was also a second assumption equally fundamental: that the United Nations must collapse as soon as the peace is broken or seriously threatened by a Great Power. That assumption has proved to be over-pessimistic. Peace has been overtly broken. Yet the system has survived the severe shock of the open breach. The United Nations system will work in the long run and, given sufficient moral cohesion among the majority of Member States, is capable even in the short-run of curing the present ill-effects of its imperfect implementation."

Peace is an unending creation. When the United Nations decided to reinforce measures for collective security contained in its Charter and through united action to reinforce fundamental conditions to peace, it was looking far beyond the present crisis.

"Enduring peace", read the General Assembly's resolution, "will not be secured solely by collective security arrangements against breaches of international peace and acts of aggression."

Member States were therefore urged "to respect fully, and to intensify joint action, in co-operation with the United Nations". In other words, in order to prevent aggression, Member States were asked "to develop and stimulate universal respect for and observance of human rights and fundamental freedoms, and to intensify individual and collective efforts to achieve conditions of economic stability and social progress".

"Collective security is both a material condition springing from a given social order and a moral one emanating from the collective members of that same order." This statement, made by Professor Georges Scelle, sums up the fundamental questions on which depend the future of humanity.

Real peace is won by victories over ignorance, misery and inequality, for it can only exist in a world community in which all members are able to achieve their rightful places as free men and to develop their ways of life peacably.

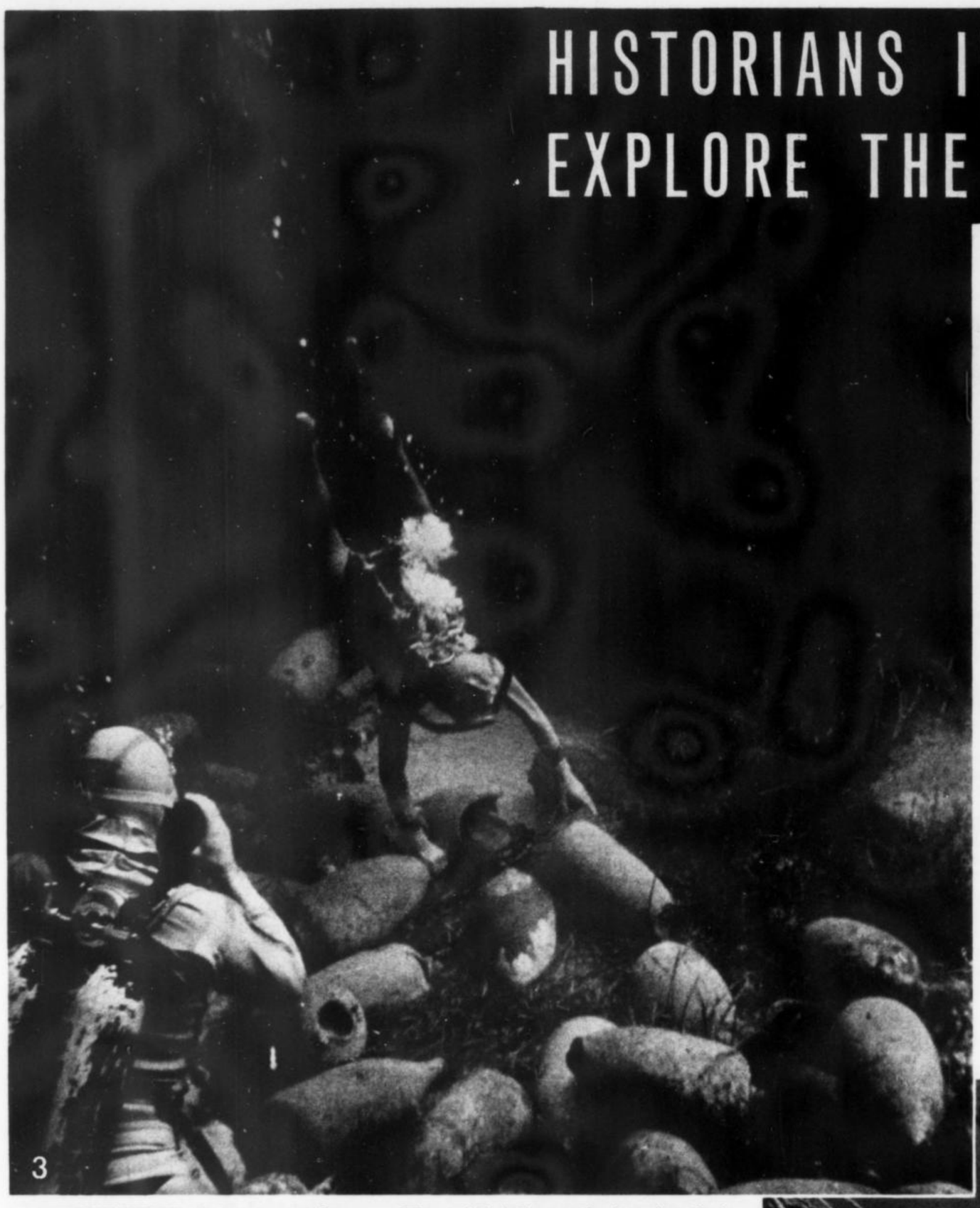
The war against wars continues. In times of crisis, when international force is needed to prevent aggression, it must be fought with arms in hand. But, at all times it must be waged untiringly in men's minds, and this is Unesco's mission on the three fronts of knowledge, solidarity and international citizenship.

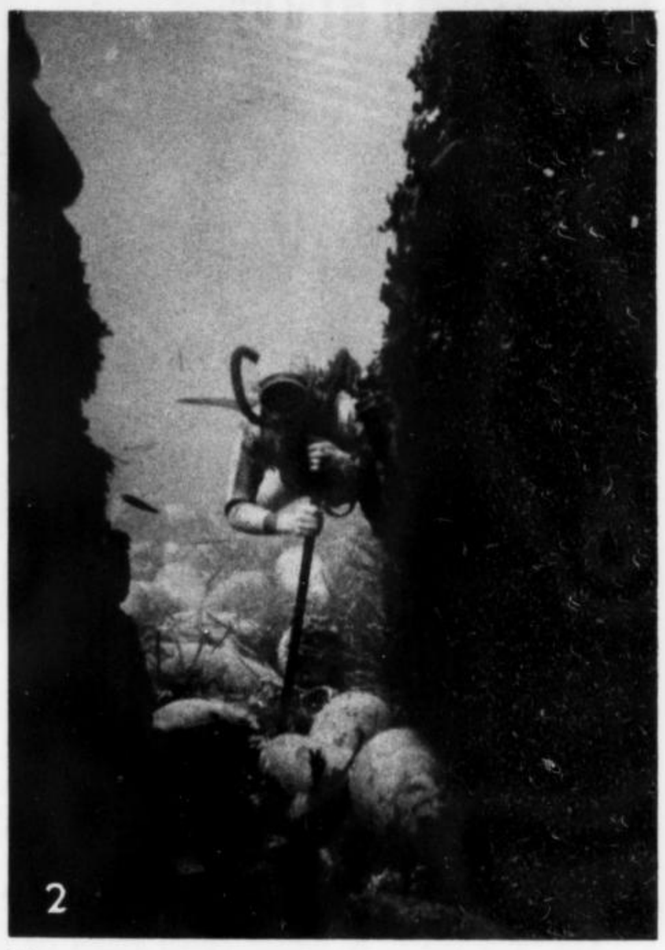
S. M. KOFFLER.

In this cemetery at Pusan lie the dead of 15 United Nations having fighting units in Korea.

HISTORIANS IN DIVING SUITS EXPLORE THE SEA'S DEPTHS

by Yann Loranz





1 Wearing the self-contained diving suit which has made underwater archaeology possible, an historian goes down to the sea-bed. 2 At the site which is to be explored, he clears away weeds and sand covering Roman jars which have lain there for hundreds of years. 3 Before the discoveries are lifted to the surface, photographs are taken so as to ensure a record in case of breakage or other damage.

THROUGHOUT the ages, man has tried to wrest from the sea its treasures. As I write, in front of me is a map of the world on which hundreds of little crosses mark in the cemetery of the sea the resting places of legendary ships with their cargoes of jewels and gold. Here are the ships of the Invincible Armada, there the *Elizabethville* with her 13,000 carats of pure diamonds, further on the frigate *Lutine* with her gold lingots, or the *Orient* with the wealth of the Knights of Malta. Elsewhere are the galleons of Philip II or the galleys of Caligula. This map reminds me of the day in 1934 when, aboard the little Italian cargo boat *Artiglio*. I saw the first dredger bucket opened, revealing the gold sovereigns which had just been taken from the shattered hull of the steamship *Egypt*.

Until a few years ago, it was the hope of making money that led sailors to carry out salvage operations. Such treasure hunters needed only a little more audacity and physical endurance than those prospecting for gold in Alaska.

Now a band of newcomers have joined the wreck-hunters on the sea-bed — a handful of men who are not motivated by thought of personal gain. In fact, I think their research costs more than they get in return. These men, who are inspired solely by their concern for history and science, are the underwater archaeologists.

Underwater archaeology, a new science which still needs definition as well as organization, owes its existence to a new diving technique, made possible by a self-contained diving suit. Following the pioneer work of Commandant Le Prieur, this suit was perfected by Commandant Cousteau of the French Navy, and a French engineer named Gagnan.

Clues To History

DURING the past 15 years, historians have left their libraries, and biologists their laboratories, to don diving suits and carry out methodical investigations off the shores of the Mediterranean. Sometimes, because of technical difficulties, governments have called in professional divers — and their reward comes when some remarkable object is brought to the surface. There was, for instance, the famous bronze statue of Zeus of Artemision which, thanks to the Greek Government, was brought up on the shores of Greece, where it had lain since the fifth century before Christ.

The uniniated wrongly imagine that the underwater archaeologists have only one aim — to recover artistic treasures hidden in the Mediterranean. The great Middle Sea, which was the scene of an intense maritime trade in ancient times, hides mainly relics — wrecks and various objects — whose shape and location provide clues to important historical facts, as well as enabling techniques of a new science to be evolved. True archaeology — whether terrestial or underwater — does not aim at pillaging the past, but at studying and reconstructing it. Certain oustanding findings have recently been totally destroyed by the depradation of amateurs, and there is, therefore, an urgent need for underwater relics to be protected by law in the same way as historic sites and monuments on the ground.

M. Philippe Diolé, one of the promoters of underwater archaeology and certainly its greatest authority, has urged that these discoveries should be treated with respect in their proper surroundings. Underwater archaeology should not entail the breaking up of articles with the sole aim of raising them to the surface, reconstituting them, and making them museum pieces. First of all it is necessary to study them closely where they are found, to clear the sites and to photograph the objects, preferably before handling them.

An Empire's "Junk"

THE "materials" awaiting searchers are of two kinds. Wrecks are the most usual, but there is also a multitude of objects which people, in all eras, have got rid of by throwing away into harbours. These are objects which, after the mud protecting them has been cleaned off, constitute the most interesting materials for study, and which provide experts with real "archaeological layers".

Among the wrecks, two have for long attracted the interest of divers: the Anthéor and the Albenga, discovered by members of the Club Alpin Sous-Marin off the Italian coast. Both contain large numbers of jars, not of marble, as has been, said, but pottery made of common clay, which in Roman times preceded the cask — a Gallic invention. This shows that the Anthéor and the Albenga were not therefore galleys, as has been claimed, but cargo boats bringing food to the Roman capital.

When one thinks of the many African ports which were used by the Roman fleet, and the number and variety of objects thrown into the water by seamen or port-dwellers, one gets an idea of the task still to be undertaken.

In any case, underwater archaeology has already proved its efficacy with the French excavations at Fos-sur-Mer where divers had to work with pickaxes to get to the newly-discovered relics. Ceramics found under the sea-bed enabled them to fix — as archaeologists and historians had never been able to do — the date of the foundation of the city by Marius: the end of the second or the beginning of the first century before Christ.

Similarly, the team of divers led by Father Poidebard, after exploring the waters of Tyre and Sidon, were able to trace accurately the plan of these ancient ports.

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The new science of underwater archaeology is still in the early pioneer stage. It lacks followers—not scientists, as such, but scientist-divers. This is a vocation which will not take long to capture the imagination of youth, and it is to be hoped that soon new teams will go to the bottom of the sea to help the development of this new field of scientific investigation.

ONE YEAR AGO THIS MONTH THE NATIONS UNITED TO DEFEND COLLECTIVE SECURITY

EVERY morning we pick up our daily newspapers to learn up at us in sharper our anxieties and uneasiness before the Janus-headed dilemma facing us all: Peace? War?

For we live in a world of tragic paradox. The genius of man has offered us the promise of an incomparably better life. Yet we also discern the warning signals of a catastrophe which could destroy all progress and plunge our world into a new age of darkness.

Is it surprising, therefore, that we long for a life free from fear? For we realize today more than ever that this is the primary need of all peoples, and that security which is a condition for freedom from fear is the goal towards which we all must work.

But how are we to succeed in our search for security? Not, as two world wars in less than half a century have shown, through the rule of force. For what meaning would victory have in the face of the devastation wrought by the terrifying perfection of modern armaments?

The simple fact is that peace must be based on international law or there will be no true and lasting peace. Has not history shown us the path of collective action which has spread from family to tribe, from city to province, then from nation to nation, until entire continents could live under the rule of law? It is for us to extend its sway over all the world. To retreat would be to admit that disaster is inevitable, or rather, to render it so by our own actions.

Collective security is not a dream; it exists. It exists as a living reality; it exists in the United Nations which was established by the co-operative effort of the sovereign nations of the world and it possesses the means to enforce respect for international law when it is violated.

It is true that the prestige of the United Nations has not in itself been enough to discourage all attempts at conquest. Thus, exactly one year ago this month and barely five years after the cease-fire of the last war, the world was suddenly faced with an act of aggression in Korea.

In the early days of the invasion of South Korea, following the refusal of North Korea to withdraw its troops, the Security Council of the United Nations on June 27 1950 recommended to its members that they "furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack and to restore international peace and security in the area". By the following month, 41 states had responded to the pledging military aid, others economic or medical assistance. For the vast majority of countries realized that peace is indivisible, that an act of aggression anywhere in the world is a threat to the whole world.

To this international action Unesco gave its full support within the framework of its competence. In August, in answer to the appeal of the Economic and Social Council, the Executive Board of Unesco decided to take steps to fulfil the "constructive role" called for by the United Nations. Unesco is prepared to carry out educational assistance in Korea and is ready to co-operate with the United Nations Korean Reconstruction Agency in the eventual reconstruction of the country's educational facilities, as soon as it is called upon to do so by the Unified Command. Unesco has already had wide experience in such work during the past five years in countries devastated by the second world war.

Unesco has yet another task to fulfil in the field of education. It is to explain and make widely known the principles of collective security as the indispensable condition of peace under law. Unesco is therefore carrying out a special educational programme which includes the preparation of pamphlets, wall charts and other written and visual materials on the question of collective security. Produced in different languages, these are being distributed in Unesco's Member States for use by schools, universities, and adult education groups. The wall-charts, designed and produced by the Bureau of Current Affairs in the United Kingdom, form a compact and colourful unit for display in school classrooms, community centres, youth clubs and factories. Three studies on the subject of collective security directed primarily to people at the college and university level have been commissioned from Dr. Andrew Martin, international lawyer and lecturer at Ruskin College, Oxford; Prof. Georges Scelle of the University of Paris; and H. E. Antonio Castro Leal, head of the Mexican delegation to Unesco. They explain the meaning of collective security in the light of the United Nations action which Unesco hopes will help create a powerful and enlightened force of public opinion in support of the world organization.

Dr. Martin puts the essential problem like this: "Our present system of collective security was built on the assumption that the principal allies of the second World War would rescue for the peace at least a fraction of the mutual goodwill and readiness to co-operate which made them victorious. That assumption has proved to be over-optimistic. Yet there was also a second assumption, equally fundamental, that the United Nations must collapse as soon as the peace is broken or seriously threatened by a Great Power. That assumption has proved to be over-pessimistic. Peace has been overtly broken. Yet the system has survived the severe shock of the open breach. The United Nations system will work in the long run and, given sufficient moral cohesion among the majority of Member States, is capable even in the short-run of curing the present ill-effects of its imperfect implementation."

Peace is an unending creation. When the United Nations decided to reinforce measures for collective security contained in its Charter and through united action to reinforce fundamental conditions to peace, it was looking far beyond the present crisis.

"Enduring peace", read the General Assembly's resolution, "will not be secured solely by collective security arrangements against breaches of international peace and acts of aggression."

Member States were therefore urged "to respect fully, and to intensify joint action, in co-operation with the United Nations". In other words, in order to prevent aggression, Member States were asked "to develop and stimulate universal respect for and observance of human rights and fundamental freedoms, and to intensify individual and collective efforts to achieve conditions of economic stability and social progress".

"Collective security is both a material condition springing from a given social order and a moral one emanating from the collective members of that same order." This statement, made by Professor Georges Scelle, sums up the fundamental questions on which depend the future of humanity.

Real peace is won by victories over ignorance, misery and inequality, for it can only exist in a world community in which all members are able to achieve their rightful places as free men and to develop their ways of life peacably.

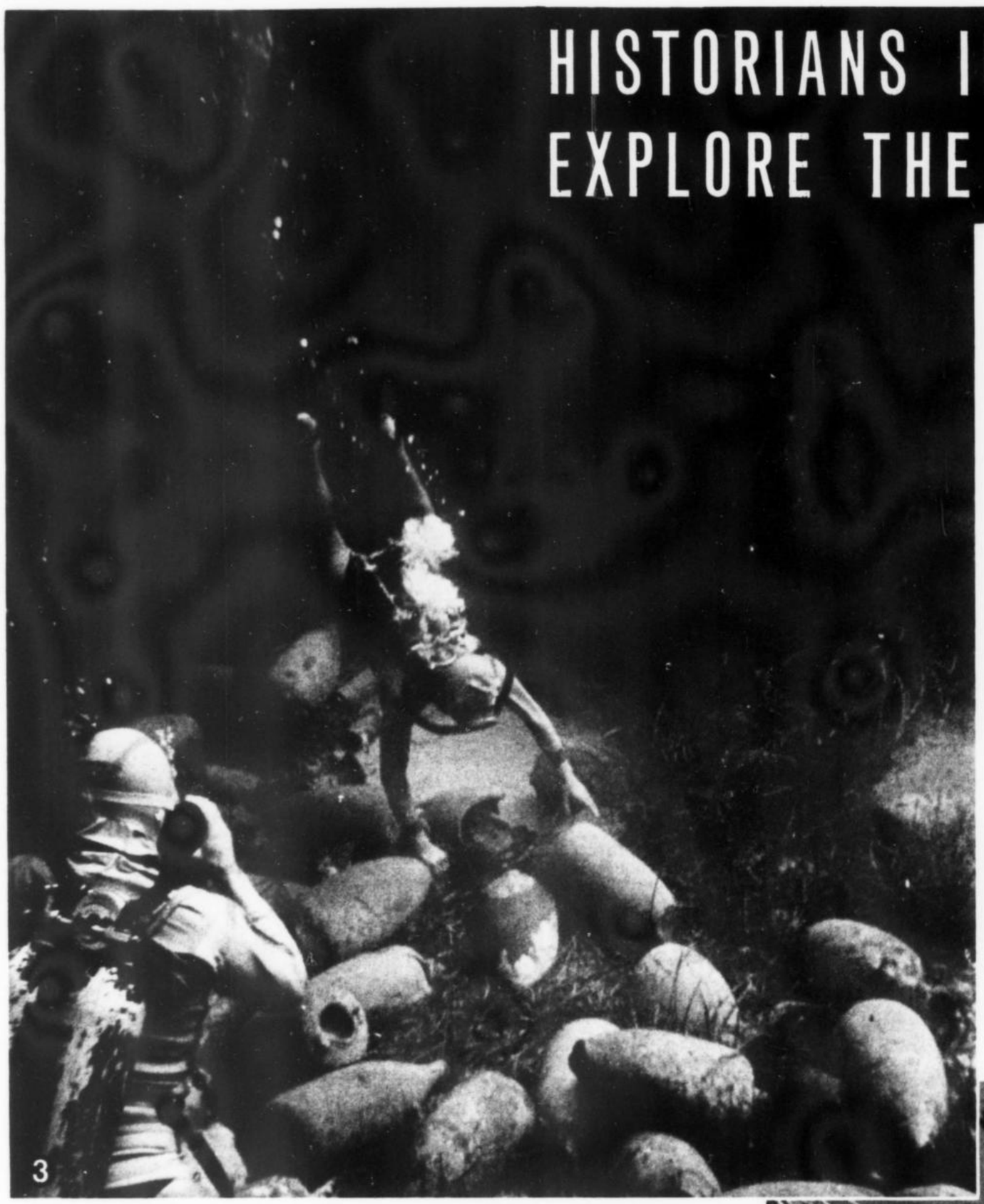
The war against wars continues. In times of crisis, when international force is needed to prevent aggression, it must be fought with arms in hand. But, at all times it must be waged untiringly in men's minds, and this is Unesco's mission on the three fronts of knowledge, solidarity and international citizenship.

S. M. KOFFLER.

In this cemetery at Pusan lie the dead of 15 United Nations having fighting units in Korea.

HISTORIANS IN DIVING SUITS EXPLORE THE SEA'S DEPTHS

by Yann Loranz



❶ Wearing the self-contained diving suit which has made underwater archaeology possible, an historian goes down to the sea-bed. ❷ At the site which is to be explored, he clears away weeds and sand covering Roman jars which have lain there for hundreds of years. ❸ Before the discoveries are lifted to the surface, photographs are taken so as to ensure a record in case of breakage or other damage.

THROUGHOUT the ages, man has tried to wrest from the sea its treasures. As I write, in front of me is a map of the world on which hundreds of little crosses mark in the cemetery of the sea the resting places of legendary ships with their cargoes of jewels and gold. Here are the ships of the Invincible Armada, there the *Elizabethville* with her 13,000 carats of pure diamonds, further on the frigate *Lutine* with her gold lingots, or the *Orient* with the wealth of the Knights of Malta. Elsewhere are the galleons of Philip II or the galleys of Caligula. This map reminds me of the day in 1934 when, aboard the little Italian cargo boat *Artiglio*. I saw the first dredger bucket opened, revealing the gold sovereigns which had just been taken from the shattered hull of the steamship *Egypt*.

Until a few years ago, it was the hope of making money that led sailors to carry out salvage operations. Such treasure hunters needed only a little more audacity and physical endurance than those prospecting for gold in Alaska.

Now a band of newcomers have joined the wreck-hunters on the sea-bed — a handful of men who are not motivated by thought of personal gain. In fact, I think their research costs more than they get in return. These men, who are inspired solely by their concern for history and science, are the underwater archaeologists.

Underwater archaeology, a new science which still needs definition as well as organization, owes its existence to a new diving technique, made possible by a self-contained diving suit. Following the pioneer work of Commandant Le Prieur, this suit was perfected by Commandant Cousteau of the French Navy, and a French engineer named Gagnan.

Clues To History

DURING the past 15 years, historians have left their libraries, and biologists their laboratories, to don diving suits and carry out methodical investigations off the shores of the Mediterranean. Sometimes, because of technical difficulties, governments have called in professional divers — and their reward comes when some remarkable object is brought to the surface. There was, for instance, the famous bronze statue of Zeus of Artemision which, thanks to the Greek Government, was brought up on the shores of Greece, where it had lain since the fifth century before Christ.

The uniniated wrongly imagine that the underwater archaeologists have only one aim — to recover artistic treasures hidden in the Mediterranean. The great Middle Sea, which was the scene of an intense maritime trade in ancient times, hides mainly relics — wrecks and various objects — whose shape and location provide clues to important historical facts, as well as enabling techniques of a new science to be evolved. True archaeology — whether terrestial or underwater — does not aim at pillaging the past, but at studying and reconstructing it. Certain oustanding findings have recently been totally destroyed by the depradation of amateurs, and there is, therefore, an urgent need for underwater relics to be protected by law in the same way as historic sites and monuments on the ground.

M. Philippe Diolé, one of the promoters of underwater archaeology and certainly its greatest authority, has urged that these discoveries should be treated with respect in their proper surroundings. Underwater archaeology should not entail the breaking up of articles with the sole aim of raising them to the surface, reconstituting them, and making them museum pieces. First of all it is necessary to study them closely where they are found, to clear the sites and to photograph the objects, preferably before handling them.

An Empire's "Junk"

THE "materials" awaiting searchers are of two kinds. Wrecks are the most usual, but there is also a multitude of objects which people, in all eras, have got rid of by throwing away into harbours. These are objects which, after the mud protecting them has been cleaned off, constitute the most interesting materials for study, and which provide experts with real "archaeological layers".

Among the wrecks, two have for long attracted the interest of divers: the Anthéor and the Albenga, discovered by members of the Club Alpin Sous-Marin off the Italian coast. Both contain large numbers of jars, not of marble, as has been, said, but pottery made of common clay, which in Roman times preceded the cask — a Gallic invention. This shows that the Anthéor and the Albenga were not therefore galleys, as has been claimed, but cargo boats bringing food to the Roman capital.

When one thinks of the many African ports which were used by the Roman fleet, and the number and variety of objects thrown into the water by seamen or port-dwellers, one gets an idea of the task still to be undertaken.

In any case, underwater archaeology has already proved its efficacy with the French excavations at Fos-sur-Mer where divers had to work with pickaxes to get to the newly-discovered relics. Ceramics found under the sea-bed enabled them to fix — as archaeologists and historians had never been able to do — the date of the foundation of the city by Marius: the end of the second or the beginning of the first century before Christ.

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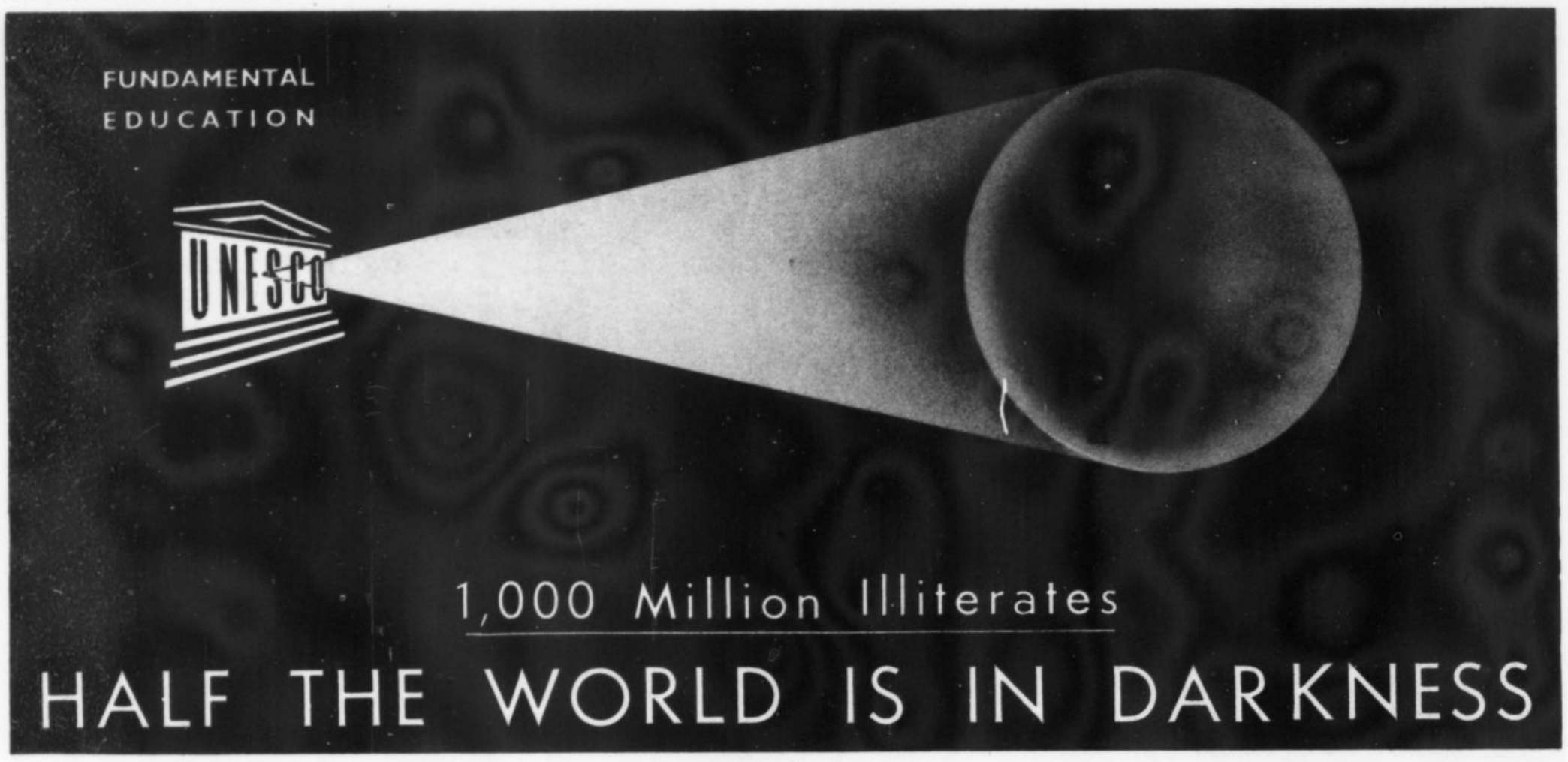
The new science of underwater archaeology is still in the early pioneer stage. It lacks followers—not scientists, as such, but scientist-divers. This is a vocation which will not take long to capture the imagination of youth, and it is to be hoped that soon new teams will go to the bottom of the sea to help the development of this new field of scientific investigation.



MORE than half the people of the world are illiterate. This means that one thousand million men and women can neither read nor write.

More than half the people of the world are also desperately poor. Their earnings are so low that their daily diet is barely enough to keep them alive. In the countries of Asia and Africa, where illiteracy is most prevalent, a child at birth can expect to live no more than thirty years, while in the countries of Western Europe, where a high proportion of the people are able to read and write, a child can expect to live 55 or more years.

Illiteracy is part of a tragic circle of underproduction, malnutrition and endemic disease.

The circle cannot be broken by an attack on only one of these elements. It is useless to concentrate on improving health if inefficient farming methods and soil erosion are left unchecked and entire populations remain undernourished. It is equally useless to teach people to read and write unless they have an incentive to learn and use this knowledge. The only satisfactory incentive is an improvement in their daily lives. Nor can agricultural production be raised if disease and ignorance keep the people who work the land in a condition of physical and mental inertia.

These problems are too complex for traditional schoolroom methods used to teach children. They are problems affecting all sections of the population —children and adults, women as well as men—and they demand a much broader approach by the educator.

Unesco's Greatest Challenge

DURING recent years, many people have taken such an approach in the world's underdeveloped regions. They have called their work by various names, such as "mass education", "basic education", "cultural missions", and "community development". Unesco which, since its foundation, has considered these problems to be its major challenge, uses the term "fundamental education".

The main purpose of fundamental education is to help people to understand their immediate problems and to give them the skills to solve them through their own efforts. It is an emergency solution designed to help masses of illiterate adults and children in countries whose educational facilities have been inadequate. It is an attempt to salvage a generation by giving it the minimum of education needed to improve its way of life, its health, its productivity and its social, economic and political organization.

Until 1950, Unesco's fundamental education work, because of a limited budget, was experimental. The experiments, however, repeatedly produced the same conclusions, no matter where they were conducted.

Fundamental education cannot hope to achieve tangible results without men and materials; that is, without qualified workers and effective educational materials specifically designed for its task.

Neither, at present, is available. The demand for primers in Creole or agricultural manuals in Sesuto is not great enough to attract private capital to the long job of research required to produce them. Teachers' training schools ordinarily do not require their graduates to be able to teach reading in one class and contour farming in the next.

If each individual country were to attempt this job, the overall cost would be staggering, and an inevitable waste of money and manpower would result. Experiments showed that a pooling of resources at regional levels was needed.

Unesco has now put forward a plan to aid its Member States by helping to train fundamental education workers and by developing samples of the teaching materials they need. This plan is intended to operate as a twelve-year programme in which a world network of six production and training centres will be established in five regions—Latin America, Equatorial Africa, the Middle East, India and the Far East (where two centres will be set up). The plan, approved by the Executive Board of Unesco, will be laid before the General Conference this month.

Teachers of Teachers

THE goal of this programme is to train some 5,000 fundamental education specialists. These graduates, in turn, will staff similar training centres organized on national and local lines. It is these latter centres which will train the teachers who will work in the field.

Under Unesco's plan, each centre will be equipped to handle two classes of 100 students each year. These students will be selected by their governments and sent to the centre in their region not as individuals but as teams. A typical team studying at a centre might include an adult educator, a sanitary engineer, a nurse, a rural schoolteacher and an agricultural expert.

Some of the students at the centre will have been already trained in their own specialties under the guidance of three other United Nations agencies—the Food and Agriculture Organization, the International Labour Organization and the World Health Organization. They will come to the Unesco centres to learn how to put their technical knowledge to work in underdeveloped regions through fundamental education techniques.

The course of study planned for these students will cover twenty-one months. At first, there will be an intensive nine month training period and then, after a one-month vacation, two months of "on-the-job training" at institutions conducting fundamental education work. The course ends with five months of practical field work as teams in the vicinity of the centres, one month of vacation and a three-month refresher course at the centre.

Use Of Films And Radio

A TYPICAL centre in operation will be organized to perform a four-fold task; that is, research, production of educational materials, teachers' training, and aid to fundamental education activities in its region.

These functions will be carried out by three departments. The first, in charge of research, will determine the specific fundamental education needs of the region in which the centre operates and the methods required to meet them. The second, or production department, will be responsible for developing sample textbooks, films, filmstrips, wall charts and other materials needed in fundamental education. Too often today, these materials are either not available, or they are unsuitable. The adult illiterate cannot be taught with texts originally intended for children. If he learns to read, only to be fed a diet of childish tales, he cannot be blamed for assuming that education is a waste of time. If, however, learning to read will enable him to learn ways of producing more food, or of taking an active part in the affairs of his community, then he is more easily convinced of the value of literacy.

This production department will include writers and draftsmen. One of the five centres will be equipped with a complete production crew to turn out films and other visual materials. Another will be similarly staffed for radio work, with an experimental recording studio included in its equipment.

The materials prepared by production departments at regional centres will be turned over to countries in the area for final use. The programme does not call for Unesco either to publish textbooks or to produce films for distribution in quantities.

The teaching faculty of the centre will comprise the third or training department. This staff will be made up of instructors in sanitation, hygiene, agriculture, handicraft industries, home economics and literacy training, as well as general fundamental education specialists.

First Centre — Patzcuaro

ALL three departments will contribute to the centre's fourth function of aiding fundamental education activities in its region. This aid will be carried out through missions by single experts or teams, the organization of conferences and study seminars and the exchange of information and documents—an important factor in this field where educators often work completely cut off from normal sources of information.

In one of the five regions, Latin America, the programme has already passed beyond the blueprint stage. On April 15, work began at a regional centre at Patzcuaro in the Mexican state of Michoacan, under the combined sponsorship of Unesco, the Government of Mexico and the Organization of American States.

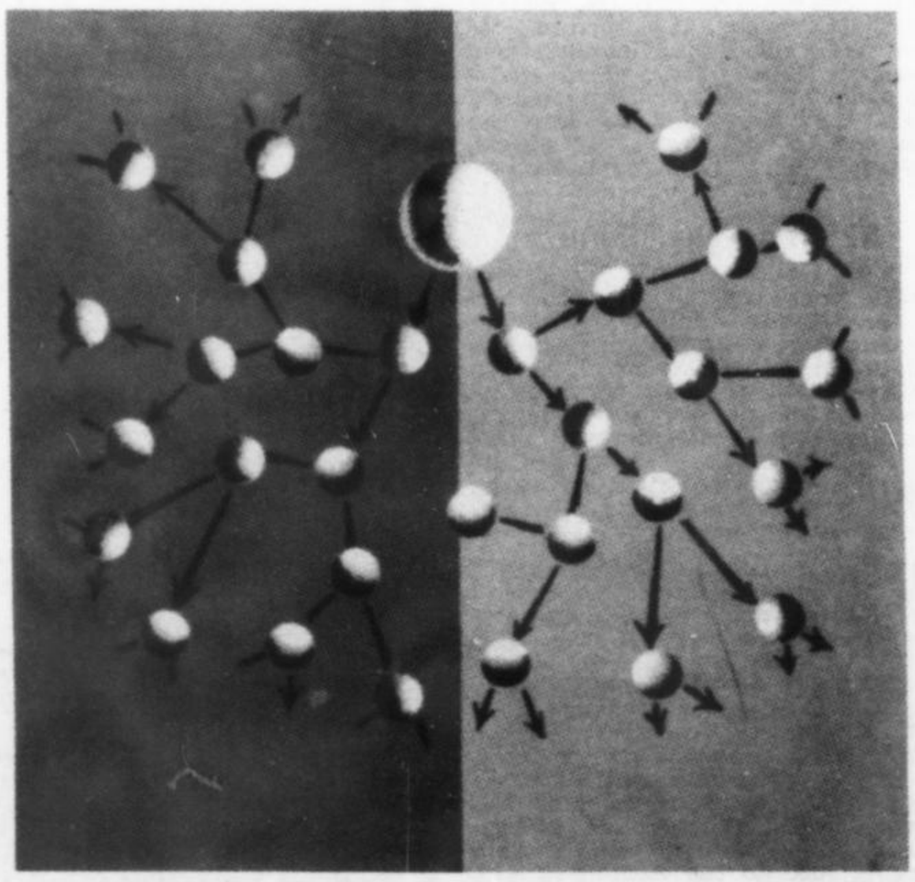
(On the occasion of the official inauguration of the Patzcuaro Centre on May 9 by M. Jaime Torres Bodet, Unesco's Director-General, the Courier devotes pages 7, 8 and 9 of this issue to a description of the Centre and of its work.)

The Patzcuaro centre should train more than 1,000 fundamental education specialists during its period of operation. These graduates will find ready employment in campaigns against illiteracy now being conducted by Latin American countries in regions where, it was recently estimated, 70,000,000 persons are unable to read and write.

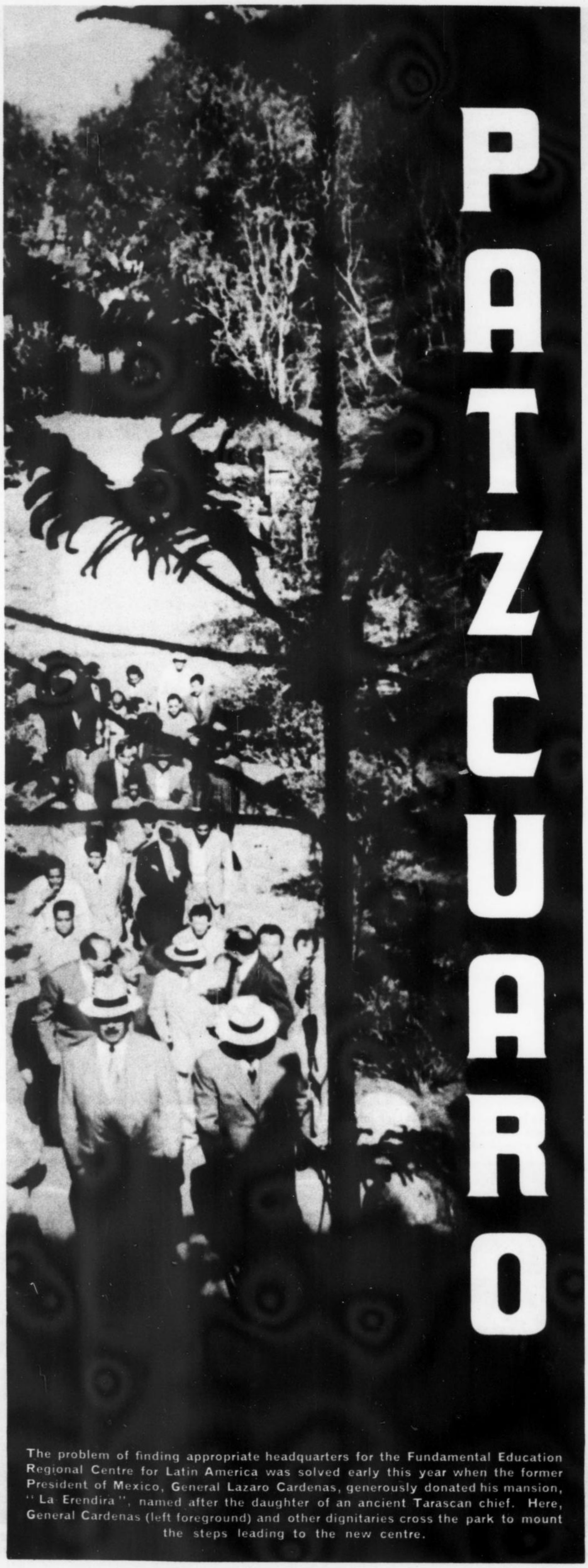
The total cost of the programme covering Latin America and the other four regions, spread over twelve years, would be $20,000,000.

Detailed proposals for financing the project have been prepared by a Committee of Unesco's Executive Board. After consideration by the Board, they will be placed before the General Conference. A substantial part of the finance needed must be obtained from sources other than the normal budget of Unesco. It is believed that this can be achieved.

This money cannot come from the regions in which the centres will open, for they are areas in which little more can be done for a long time, than to provide the populations with a hard-won living. Obviously, it is in the interests of the better-favoured regions and of the whole world that less fortunate areas should not be abandoned to illiteracy and disease, to poverty and recurrent famine, and, worst of all, to despair.



CHAIN REACTION FOR PEACE. One of the novel features of Unesco's world campaign against ignorance has been called "training by chain reaction". Specialists trained at six Unesco fundamental education centres will return home to establish national and then local training centres, thus greatly multiplying the number of qualified personnel needed for this urgent drive against illiteracy and low living standards.



The problem of finding appropriate headquarters for the Fundamental Education Regional Centre for Latin America was solved early this year when the former President of Mexico, General Lazaro Cardenas, generously donated his mansion, "La Erendira", named after the daughter of an ancient Tarascan chief. Here, General Cardenas (left foreground) and other dignitaries cross the park to mount the steps leading to the new centre.

Tarascan boy in island village of Janitzio near Patzcuaro studies poster announcing inauguration of fundamental education training centre. Poster, produced by silk-screen process, is the work of members of the newly-established centre.

FIRST H. Q. IN THE FIGHT AGAINST IGNORANCE

by Daniel Behrman

ON the occasion of the inauguration last month of Unesco's first fundamental education training centre at Patzcuaro, the COURIER sent Daniel Behrman to Mexico to report on this event. On the following pages Mr. Behrman describes the Patzcuaro Centre, its work and the communities which are serving as the local base for its operations.

"Tata" Vasco de Quiroga

DON VASCO DE QUIROGA died 400 years ago, but he is still the leading citizen of Patzcuaro, a quiet little town on the shores of a fairy-tale mountain lake some 250 miles west of Mexico City.

He was very much present on May 9, 1951, when, in the presence of President Miguel Alemàn of Mexico, nearly 4,000 people crowded into Patzcuaro's main square to watch M. Jaime Torres Bodet, Director-General of Unesco, inaugurate the first international training centre and research laboratory for raising standards of living through education.

As the ceremony ended, a tall Tarascan Indian stepped up to a microphone on the improvized grandstand. Turning to the Mexican President and M. Torres Bodet, he said, in Tarascan, that he and his people were very pleased to see the centre open. "Tata Vasco would have approved," he added.

In Tarascan, "tata" means "our beloved father"; it is a title with which only a few people have been honoured. Don Vasco earned it in the 16th century when he was sent to Patzcuaro by the Spanish Government to investigate reports that landholders were enslaving the Tarascans.

By 1537, when he became the first bishop of what is now the Mexican State of Michoacan, he had persuaded the Tarascans to leave their mountain hiding-places. He founded schools and taught the Tarascans to help themselves by organizing local industries. Market day in Patzcuaro is still Friday, the day Don Vasco chose. He died in 1565 at the age of 95 while visiting a Tarascan village. But, in the 20th century, if you explain the meaning of "Fundamental Education" to a Tarascan in Patzcuaro, he immediately thinks of Don Vasco.

For "Fundamental Education" is simply education in the fundamentals of daily life. It is a highly-specialized field. Teachers not only have to be familiar with methods of purifying water or of crop rotation, but they must have the ability and the understanding to explain them in the simplest terms.

70,000,000 PUPILS

DURING a visit last month to villages on the shores of Lake Patzcuaro I saw farmers who, only recently, had abandoned the wooden plough. I saw men 60 years old in island villages who could not read or write. Up in the mountains surrounding the lake — the lake itself is 6,300 feet above sea level — I saw Tarascan girls drawing water from an uncovered spring, with pigs wallowing a few feet away.

These conditions are gradually being eliminated in the Patzcuaro region through an efficient, and now deeply-rooted, rural education system set up by the Mexican Government. But — and this is the reason why an international centre is now operating at Patzcuaro — most of the world's population live under similar conditions.

The centre has been established through the close co-operation of Unesco, the Organization of American States (OAS), the Mexican Government and three other specialized agencies of the United Nations — the Food and Agriculture Organization, the International Labour Organization and the World Health

A colourful pageant of sombreros, peasant dresses, baskets of flowers marks opening of Patzcuaro centre. Above, Tarascan Indians entertain guests with traditional songs.

In the Patzcuaro region a husband often considers that his wife should always have work to do. Patzcuaro recreation specialists feel that recreation programmes should begin in the peoples'homes with the wife taking full part in the family's leisure occupations.

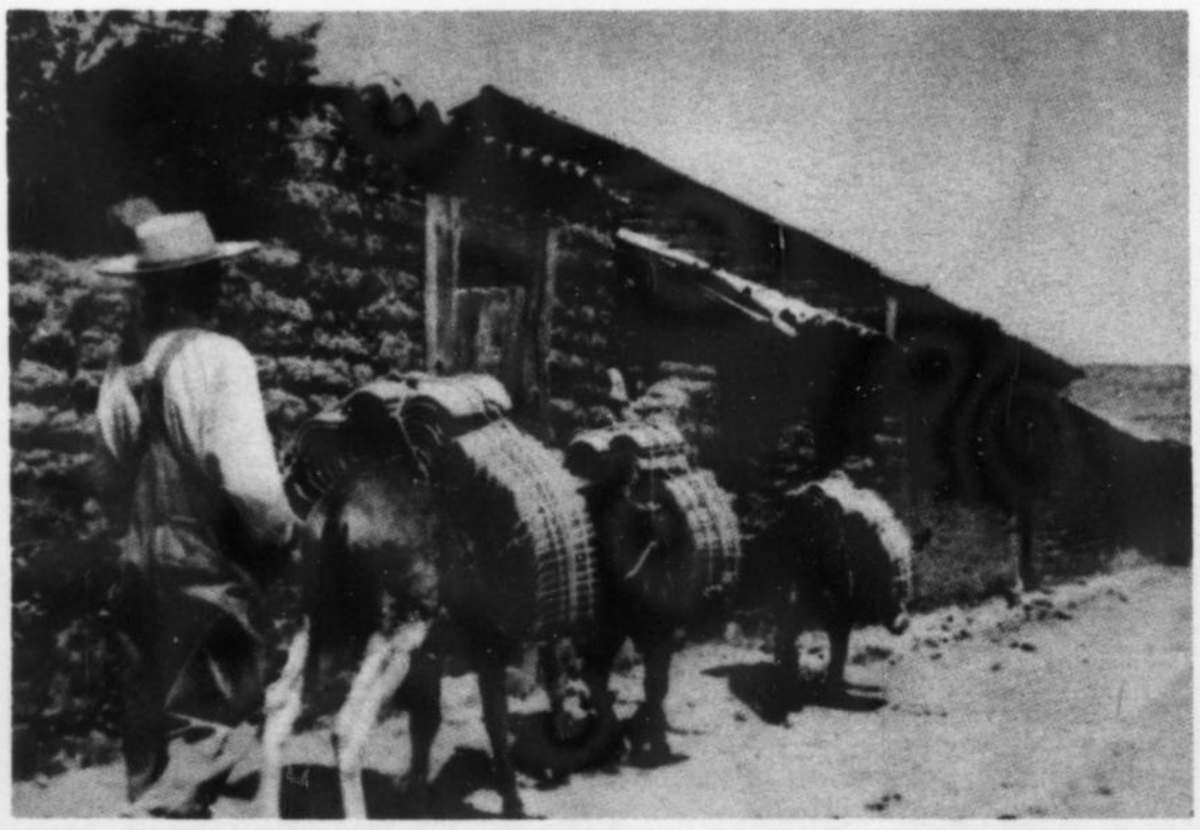
This Tarascan di into the main ar the first trainin

This boy's father never went to school but he hopes his son will have the chance to learn to read and write.

Lake Patzcuaro, 6,500 feet high and 250 miles west of Mexico City is the heart of the region where the world's first international centre for training fundamental educational experts was inaugurated last month. Here, Tarascan fishermen return home with their pictu-

resque "butte handed for th observe the

This fisherman's net-shop is his family's bedroom, living-room, dining-room and kitchen all rolled into one.



Eighteen Tarascan communities near Patzcuaro, like the lakeshore village of Cucuchuchu (above) make up the "laboratory" area—about 80 square miles—of the Unesco centre.

Music comes y music. A 24

rascan dian woman and her son were among the 4,000 spectators who crowded main are of Patzcuaro Village in Mexico on May 9 to watch the inauguration of trainin entre set up by Unesco as part of its world-wide battle against ignorance.

"butte nets after spending all night on the lake. They often return empty- l for th they depend entirely on the lake's fish supply for a living, they do not e the ed fish-breeding season. They thus destroy their own livelihood.

comes y to the Tarascans. Many who cannot read their own names can read A 24 e orchestra in a tiny village of 1,000 is not at all unusual in this region.

OBJECTIVE Nº 1

80 sq. miles – 10,000 Tarascans around a mountain lake

(CONTINUED FROM PAGE 7)

Organization. Unesco has allotted $115,000 for its first year of operation and the OAS $40,000. Buildings and land are provided by Mexico.

The centre has two objectives: to train teachers of fundamental education for Latin America and, secondly, to find out what are the best teaching aids available. In Latin America alone, there are 70,000,000 people who cannot read or write — and illiteracy is nearly always found along with bad health, inadequate housing and out-dated, inefficient working and farming methods.

The term "teachers of fundamental education" does not necessarily imply school-teachers alone. Unesco, at Patzcuaro, has the assignment of training specialists from other UN agencies in the methods of bringing home their knowledge in fields such as health, agriculture and rural industries, to the people who need it. Experts from WHO, FAO and ILO are among the centre's faculty members.

The centre now has 52 students from Bolivia, Costa Rica, Ecuador, El Salvador, Honduras, Peru, Guatemala, Haiti and Mexico. Its faculty has an equally international flavour with members from Colombia, Denmark, Mexico, Puerto Rico and the United States.

FOUR POINT PROGRAMME

EIGHTEEN Tarascan villages within easy distance of Patzcuaro make up its "laboratory". These communities live on islands, in mountain valleys, or on the plain separating the lake from the mountains. In all, the "laboratory" covers about 80 square miles, with a population of 10,000.

Faculty members consider these Tarascan people one of the centre's most valuable assets. They are industrious and intelligent, with a long tradition of local handicrafts — some of which, unfortunately, are dying out.

The centre's curriculum in this region was summed up briefly by Lucas Ortiz, a stocky, powerfully-built man of 47 who directed Mexico's rural education programme before becoming director of the Patzcuaro centre. He believes in making people work by example. Six days a week — sometimes seven — he is at work in the centre's headquarters at Erendira, the graceful villa given by General Lazaro Cardenas, former President of Mexico.

"At Patzcuaro", Senor Ortiz explained, "we intend to show students how to stimulate the improvement of life in rural areas through what I like to call the four cardinal points of fundamental education. These are:

"First, man must protect his health;

"Secondly, he must take advantage of local natural resources;

"Thirdly, he must dignify his home life — materially and spiritually;

"Fourthly, he has the right to enjoy leisure, and he must be given the opportunity to do so."

I looked up from my notebook and asked: "But what about teaching him to read and write?"

Senor Ortiz smiled. "We're often asked that. It is no use teaching a man literacy unless you convince him it will help solve the problems of his daily life. We teach literacy when we teach health or home economics or agriculture, but never as a separate, isolated subject".

CLOSED TO MOSQUITOES

THE man in charge of training teachers along these lines is a slim, soft-spoken Colombian, Dr. Gabriel Anzola Gomez. Like other members of the faculty, Dr. Anzola Gomez was living in makeshift quarters while awaiting the conversion of an old hotel's tourist cabins into family bungalows — a task still not completed.

Previously, 150 carpenters, bricklayers, plumbers and electricians had given priority to school facilities. Working 12-hour days, they transformed General Cardenas' villa into an administrative building. The dining room of Erendira (the villa is named after the daughter of an ancient Tarascan chief) became a library. The billiard room was converted into a photographic laboratory and the garage into a compact, two-storey print shop.

The order of priority did not displease Dr. Anzola Gomez, who was working the same hours himself putting the centre's curriculum into final shape. A key man in his own country's educational system — he directed Colombia's literacy campaign in 1941 and 1942 — he is firmly convinced the centre has an important job to do.

"The only way to raise living standards in regions like Patzcuaro is through close co-ordination between teachers and technicians", he said.

"That may not be clear, so let me give you an example from my own experience — a bad example at that.

"About 15 years ago, I was director of education in a Colombian province with 150 rural schools. We were suddenly faced with an outbreak of tropical anæmia and I had to act quickly. The province's doctors distributed medicine wholesale, and we began a big campaign to build sanitary facilities. We put a cement latrine in every school, and the sickness disappeared. But the following year, tropical anæmia broke out all over again.

"It didn't take us long to find out why. Every latrine was locked. Someone had tacked up signs: 'Keep this door closed to prevent mosquitoes from entering.' So, no one ever opened the door.

"That taught me that education has to accompany even the simplest technical improvements", Dr. Anzola Gomez concluded.

LIVING WITH THE PEOPLE

IN their training, the centre's 52 students will work in ten teams with each member specializing in one of the following subjects: health, home economics, rural economy, recreational programme or what the centre calls social education — that is, education to give villagers a sense of community responsibility.

At present, the students are ready to undertake an intensive survey of each of the 18 villages in the area. It will be a house-to-house, family-by-family affair. When the results of this survey are brought back to the centre, the students themselves will lay out fundamental education programmes for each village, with the guidance of faculty members.

These programmes, Dr. Anzola Gomez stressed, will vary from village to village. On the islands, for example, where villagers live by fishing, the main problem is that the fish supply of Lake Patzcuaro diminishes every year. In the mountains, there is an urgent forest conservation problem and, on the plains, agricultural methods need improvement.

These programmes are no paper theories. Once they have been decided, student teams will go out and put them into practice, living in each community for a fortnight at a time. They will work closely with Mexican teachers. "We are certain to make errors, but we have to try", commented Dr. Anzola Gomez. "The only way of not making mistakes is not to attempt anything".

That also sums up the approach adopted by Dr. Enrique Laguerre toward solving the second main problem facing Patzcuaro's students and faculty. Dr. Laguerre, whose home is in San Juan, Puerto Rico, is responsible for producing teaching aids for experimental use in the Patzcuaro region.

Since nearly all Latin-American countries speak Spanish, and many of them have the problem of a bi-lingual population, he feels that methods and materials proved in his Tarascan "laboratory" would be valuable as models to teachers throughout much of the Western Hemisphere.

Dr. Laguerre brought to Patzcuaro long experience in the use of the written and spoken word. A Professor of Spanish literature at the University of Puerto Rico, he also has written and produced radio programmes for a "school of the air" in San Juan. He has written four novels, three of them awarded prizes by

THE CENTRE'S LEADERS

LUCAS ORTIZ : head of the Patzcuaro Centre

GABRIEL ANZOLA GOMEZ : Teachers' specialization training.

ENRIQUE LAGUERRE : production of education aids.

LUIS FELIPE OBREGON : recreation and artistic development.

MIGUEL LEAL : fundamental education specialist.

ISIDRO CASTILLO PEREZ : fundamental education specialist.

M. Jaime Torres Bodet (left) is welcomed at the Patzcuaro Centre inauguration ceremony by an Indian woman who presents him with a miniature Tarascan guitar, the traditional instrument of the people. On his left, President Alemán.

Students at the Centre are teachers who have come to Patzcuaro from all parts of the American continent to be trained as specialists in fundamental education. Here are some at work in the Centre's library.

"La Erendira", the Unesco Centre's main villa, has been partially transformed to meet staff needs. Above, storey is added to garage to house printing shop for producing local texts and other teaching materials.

OBJECTIVE N° 2: SPREADING THE BENEFITS OF PATZCUARO TO ALL THE WORLD

(CONTINUED FROM PAGE 9)

Dr. Laguerre, who is 44, speaks slowly and weighs his words. He plans to weigh carefully every word he and his staff use in the textbooks, radio programmes and films they produce at Patzcuaro.

As far as textbooks for newly-literate adult pupils are concerned, Dr. Laguerre believes they must meet two standards; they have to be adapted to local ways of life and they must use the simplest possible language.

His first step in textbook production might be called an inventory of the region's word resources. Though nearly all the Tarascans speak Spanish, they have their own version of the language. If you tell a fisherman on Lake Patzcuaro, in good Spanish, that he is using a *malla*, he will not understand. He calls his net a *cheremicua*.

Dr. Laguerre has already enlisted the aid of local newspapers and school-teachers in his survey. He also counts on the centre's students as word "detectives", because they come from other areas and thus are the first to spot local variations in the Patzcuaro region's Spanish.

Aiding Dr. Laguerre in textbook production work are two pressmen and two artists, all hired locally. Artists, he believes, should come from the region

where the textbooks are to be used, or else they must spend too much time learning about the region. "If we use a house or a fishing boat to illustrate a textbook," he explained, "it has to be a house or a boat our readers recognize or else they are meaningless. We've no place for abstract conceptions".

Two village girls show keen interest in a drawing which Justino Melgar Aliaga, Peruvian member of the Patzcuaro centre, is explaining to them during an out-door lesson.

REALISTIC BOOKS AND FILMS

As the centre's publisher, Dr. Laguerre has a compact Multilith press and a set of Varitype machines. The Varityper is basically a typewriter with a mechanism permitting it to print what publishers call "justified lines" — that is, columns with even margins on both sides as in an ordinary newspaper. Dr. Laguerre chose these machines because they offer a wide selection of type faces, and because their letters can be photographed and enlarged to any desired size at low cost.

With Dr. Laguerre are two experienced American librarians, Marie Rapp of Detroit, Mich., and Rosemond Cook of Brockport, N. Y. His film section is headed by Hagen Hasselbalch, a Danish writer, director and cameraman (documentary film production by one man is not unusual). Both Mr. Hasselbalch and Dr. Laguerre believe educational films in regions such as the Tarascan villages surrounding Patzcuaro require a technique quite different from that used for audiences in New York, London or Paris. Dr. Laguerre told a story to illustrate his point :

"A few years ago, an animated cartoon on the dangers of the mosquito was shown to an audience in Africa and, at one point, the mosquito was enlarged until it filled half the screen. This put the spectators in a hilarious mood. They went home and slept soundly because they knew they didn't have mosquitoes that big around their houses."

The film strip (a modern offspring of the old-fashioned magic lantern) has many points in its favour for educational work, and the centre will use it. It can be shown with a simple projector operating on a gas lantern, so lack of electricity is no barrier to its use. Images can be held on the screen for as long as necessary to permit full explanation, and it is simple to flash back a few pictures and explain a difficult point all over again.

Dr. Laguerre and his staff are equally interested in reaching people through their ears as well as their eyes. The centre has begun broadcasting over Station XELQ in Morelia, a small town 35 miles from Patzcuaro.

A preliminary trip through the region showed that each village has at least six or seven radio sets, which are often centres of community life. Dr. Laguerre has enlisted the aid of village school-teachers to make a more complete census and to check on listener reaction to the Centre's programmes.

Radio has helped to make known the Patzcuaro Centre and its objectives to the entire region. On May 7, two days before the official inauguration, students representing eight countries talked about themselves, their homes and their work over XELQ. Music on this programme included a suite based on South American Indian music played by a talented Bolivian pianist, and the rendering of Creole folk-songs by a young Haitian student.

During the year, each nation's students at the centre will be called upon to produce educational programmes over XELQ, which has allotted the Patzcuaro centre one half-hour of broadcast time a week and more if it needs it.

"DON'T SHOOT THE TEACHER"

Like Dr. Laguerre and Dr. Anzola Gomez, who are two programme directors under Senor Ortiz, other members of the faculty give the same impression of patience and competence.

Miguel Leal and Isidro Castillo Perez, the two "fundamental education specialists", learned their trades from the bottom up, both beginning as rural school teachers. Senor Leal held a top post in

One of the Patzcuaro Centre's specialists, Luis Felipe Obregon (complete with stick and abundant good humour) is always welcome at neighbouring village of Zurumutaro. Recreation is an important part of fundamental education.

Patzcuaro centre students have to step warily as they traverse Janitzio village so as not to get entangled in the fishing nets spread across the street. First-hand study is part of students' curriculum.

Mexico's agricultural education department before coming to Patzcuaro. Senor Castillo is the founder of Mexico's first rural teachers' training school and a veteran of the days when fanatics roamed Michoacan with rifles looking for school-teachers as a target.

"I never went armed myself", he recalled, "I was afraid I might have to use the gun if I carried one".

Senor Castillo emphasized that, though a teacher, he doesn't have much use for lectures and large classrooms. "I believe in learning by doing", he said. "If this centre at Patzcuaro had been a formal school, I wouldn't have come".

Another veteran Mexican educator is Luis Felipe Obregon, in charge of training teachers to organize recreation activities in villages. A distinguished-looking man of 47, he is willing to shed his dignity at a blast of a whistle and referee a basketball game or start playing ball with Tarascan youngsters. He believes recreation teachers are key men in this specialized education because of two factors :

◆ They fill a definite need in villages where the only pastimes may be card-playing, alcoholism or idleness.

◆ They act as salesmen—propagandists, if you will—for the other teachers who often must follow them.

"There is nothing which wins the confidence of a village like playing with children in the street", he commented. Besides that, Senor Obregon enjoys it.

He has already sketched out a preliminary recreation programme in the Patzcuaro region following trips to the local villages. These are some of its points :

Revival of local dances for which the Tarascans are famous.

Encouraging village composers and musicians who need help in technique : Many Tarascans who cannot write their own names can read music and, on a Sunday morning, every other man you meet on a country road carries a musical instrument—from a bass fiddle to a clarinet. It is not unusual to find a 24-piece orchestra in a village of 1,000—but techniques need polishing.

Organizing sports in the region : Mexico, in general, is very basketball-minded and Senor Obregon intends to encourage volleyball and football too. His plans include the establishing of a basketball league in the villages near the centre. No medals or cups for the winners, however — they will get agricultural implements and home equipment instead.

Enabling women to take part in the family's leisure occupations: In too many homes surrounding Patzcuaro, a husband often thinks there is something wrong if his wife has nothing to do. The answer is to make sure recreation programmes begin at home, even if it means merely convincing the husband his wife should sing when he plays his guitar.

Theatres-in-the-round on an outdoor stage : This is both recreation and education, for a play can teach the advantages of, say, literacy much more vividly than a textbook, In theatres-in-the-round, the audience sits in a circle with the stage in the middle—a form, incidentally, employed successfully by a recent play in New York.

The enthusiasm and the utter disregard of fixed working hours shown by Senor Obregon and other faculty members is matched by the centre's students. They are a serious, mature group — their average age is around 30 — and nearly all of them have worked as school teachers or directors of adult education before coming to Patzcuaro for what in reality is advanced post-graduate study.

Here is what some of them plan to do after finishing their year of study at the centre :

Hector A. Burbano of Ecuador, a 37-year-old teacher whose build gives him away as a former football player, is specializing in rural economy because he believes education must operate in this field in order to raise living standards in his own country. Senor Burbano and the four other members of Ecuador's team have signed contracts with their government to work as an educational team in Indian regions in Ecuador after completing their course.

Nora Soto Rodriguez is studying at Patzcuaro to take over a school now being constructed at Coronado, San José (Costa Rica). The Costa Rican government plans to open five new rural schools, and members of this country's team at Patzcuaro will help staff them when they return.

Justino Melgar Aliaga, a 33-year-old high school professor from Peru, has the assignment, with other members of his nation's team, of setting up a centre similar to Patzcuaro on a national basis upon completing his course.

PROBLEMS OF PATZCUARO

Senor Melgar Aliaga and Senor Burbano, both found striking similarities between the Tarascans and the Indian peoples of their own countries. Thus the problems faced by the Tarascans are not peculiar to any one region.

Vicente Campos for example, might be a fisherman on any mountain lake. He happens to live on the island of Janitzio, in Lake Patzcuaro. Paradoxically enough, one of the main needs of his family and that of Janitzio's 1,500 other inhabitants is good water. They now haul their water up from the lake in buckets yoked across their shoulders, and not all of them boil it — with the result that waterborne disease crops up sporadically on the island.

Then, too, Vicente Campos has no easy time making ends meet. He depends entirely on the lake's supply of whitefish for a living — but the supply shrinks every year. Now he works every night from 8 p. m. to 5 a. m. tugging a net 100 feet long with a dugout canoe. When he makes a catch, he sells it for 35 centavos a lb. (about $.03) — but there are nights when he paddles back empty handed. He spends his days repairing his net, a normal routine except when a net has to be replaced. Then he and the rest of the family work for months making a new one — while the fish go uncaught.

Julian Talavera has nine acres of good land outside of the lake-shore village of Zurumutaro, but there is not much water for the land or his home. And Julian Talavera is willing to listen to advice on how he could get more than three-quarters of a gallon of milk a day from his cows.

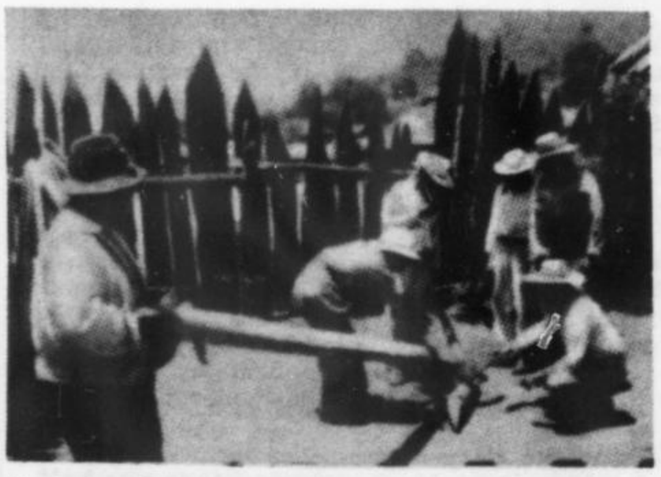
Up in Casas Blancas, a mountain village 7,400 feet high and 10 miles from Patzcuaro by road, Macorio Soto has an entirely different complaint. He happens to be the village's second law enforcement officer with the assignment of patrolling forests to see that conservation laws are observed.

One of these laws forbids anyone in the region from cutting down a live tree (wasteful stripping of trees is believed to be one reason why, in Casas Blancas, you may find wells 100 feet deep and bone-dry). However nothing can turn a live tree into a dead one faster than a forest fire — and "accidental" fires happen frequently. That is, the villagers always tell Senor Soto that the fire was accidental as they set out to chop down the newly-killed trees.

These are only three of the 10,000 villagers whose problems in daily living have become those of Unesco's international centre at Patzcuaro. Can you educate mountaineers to realize that cutting trees wastefully means cutting their own life lines? What is wrong with Julian Talavera's cows? Is it the feed, or does the region need new stock? And what is the best way out of Vicente Campos' difficulties? Is it stocking the lake with fish, teaching him to observe a closed season while fish are breeding, or must be learn a new way of making his living?

These questions cannot be answered quickly. Mexican education leaders have spent years working on them. Patzcuaro, first of a world chain of Unesco centres to extend fundamental education by providing a greatly increased number of specialized teachers using the latest techniques, will help Mexico — and other countries — in this huge task. For over half the world has a vital interest in the answers.

(PHOTOS BY HAGEN HASSELBALCH AND PEDRO PINA SORIA.)



A student from the centre explains to villagers at Casas Blancas the advantages of the steel plough and describes modern methods of agriculture.

Pruning the branches of a young tree helps it to grow better, as a student demonstrates to two farmers in a village near the Patzcuaro centre.

A crude fireplace with no chimney, corn still ground between stones. Improved methods could ease this woman's life, as two students explain.

TECHNICAL ASSISTANCE
NOW BENEFITS 23 COUNTRIES

ONE of the most alarming aspects of our contemporary society is the gap which separates the most developed countries from the least developed ones. It is true that this gap has existed throughout recorded history for as long as there have been cleavages of wealth and poverty between nations. But today, in an era in which the great majority of the world's nations have joined together to seek permanent peace through international co-operation, a new way had to be found to spread the benefits of scientific and industrial progress to those areas which lack not only capital but technicians, scientists and trained workers. The plan of technical assistance elaborated for this purpose by the United Nations and its agencies is conditioned by a number of complex problems. For it is not enough to furnish those "unfavoured by history and geography" merely with the means of progress. They must be made capable and desirous of using them. More than this, technical assistance can only be a direct result of the desire, willingness and active efforts on the part of these countries for their own development and the shaping of their own destiny. Unesco has been guided in its programme by the principle that education and scientific research must accompany and follow any economic development worthy of the name. It has therefore approached the problem from the human rather than the material angle. Instead of helping an underdeveloped nation by constructing dams and bridges —although they may be badly needed —it is equally urgent, if not more so, to train teachers, engineers, supervisors and workmen who will be able to build these bridges and dams themselves. In other words, the final aim of Unesco's technical assistance programme is not to provide teams of foreign workers, but national ones recruited and given instruction locally. As part of its Technical Assistance programme for 1951-52 alone Unesco has earmarked $2,300,000. In recent weeks Unesco has signed aid programmes with Brazil and the Philippines and sent scientific and educational teams to Liberia and Thailand. Already, a total of 23 nations are benefitting from this aid programme in Asia, Africa, Europe and America. Thirty Unesco specialists are already at work in different countries and this number is soon expected to reach 156 with additional countries participating in the scheme. The technical assistance programme has been widely hailed by eminent international figures, all of whom have recognized its far-reaching importance. On this page we are proud to publish four statements prepared specially for the Unesco Courier by Count Carlo Sforza, Paul Van Zeeland, Geronima Pecson, and H. R. Kruyt.

M. PAUL VAN ZEELAND
Belgian Minister for Foreign Affairs

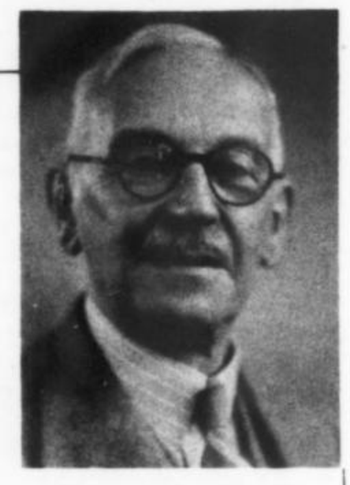
THE very idea of giving Technical assistance to under-developed countries is a noble and stirring one, and I can easily understand how it has appealed to the imagination of men of goodwill.

Unesco can be proud of carrying out the educational and cultural aspects of this programme.

As a universal organization it has responded to the undefined, yet pressing, appeal which has come to us from past generations, for every age has witnessed the inexorable struggle between rich nations and less fortunate ones. The human and material resources of Unesco's member countries are enormous, and its action can at the right moments tilt the scales in the right direction.

It is necessary, however, that in each of the assisted countries a balance be kept between technical progress and traditional customs, for material progress cannot be made at the cost of destroying inestimable moral or spiritual values acquired over centuries. If this should happen, mankind's cultural patrimony would suffer a great loss.

The struggle against ignorance and inertia is one of the most reassuring aspects of the vast spiritual movement under way in the world today. It makes a vital contribution to the establishment of a genuine peace between peoples. The task Unesco will undertake may be long and hard, but let us not forget that the most lasting victories are those won in the face of difficulty over injustice, misery and ignorance.

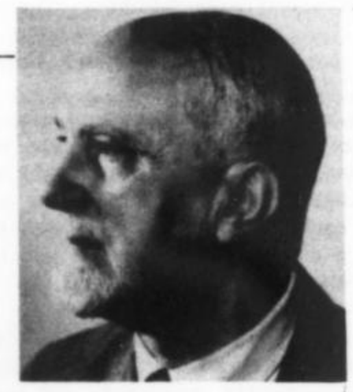


Professor H. R. KRUYT,
Chairman of the Netherlands Commission for International Co-operation

IN this world we want more happiness and to attain this we must fulfil certain preliminary conditions. In the first place, if we are to enjoy good health, we must be amply fed and this means we must work for favourable social and economic conditions, i.e. a certain level of prosperity. Above all, we must adopt the right mental attitudes and see to it that education equips people to achieve these aims.

In developed countries these important values were recognized gradually, and it took us centuries to reach the present conditions. Younger nations are striving for similar ones and we are bound to help them wherever we can.

Speaking for the Netherlands, I am happy to say that the Government as well as all institutions in the fields of education, science and culture are willing to contribute in helping less developed countries. We can offer such help not only in fields in which we have always specialized (hydraulics, soil science, shipbuilding, agriculture), but in others in which we have a large experience—in tropical problems, tropical hygiene, fundamental education, tropical agriculture etc. We have already welcomed to our country, to our mutual satisfaction, many people from less developed countries. Moreover, an international academy to supply the needs of other peoples coming to the Netherlands, is planned. I hope that Unesco may succeed in the important task of assisting the less developed countries in education and culture.



COUNT SFORZA, *Minister of Foreign Affairs, Italy*

THE programme undertaken by Unesco within its constitutional fields of education, science and culture, as part of the Technical Assistance Plan for under-developed countries deserves to be widely known and encouraged.

The technical assistance offered by Unesco is a new application of an international solidarity which, in spite of many adverse currents, is becoming more evident each day. It assures to less favoured peoples the conditions of prosperity and independence indispensable to the dignity of men and women who want to live in freedom.

In giving its most effective co-operation to the Technical Assistance Plan, Italy is following the highest and most vital traditions of its national spirit.

MRS. GERONIMA T. PECSON, *Senator of the Philippines*

WE of the Philippines are near enough to the Korean conflagration to feel the heat of its war flames. Conscious of the danger, we instinctively seek protection. In so doing we find that protection, like peace, is indivisible. We cannot protect ourselves merely by ensuring safety within our own borders. We realize that we must have peace among our neighbours — nay, peace in the whole world — to ensure safety for ourselves.

But as long as there is hunger and want on any part of the earth, as long as decent living is denied to great groups of people, as long as misery and abuse drive man to unrest, peace will not prevail. For man the only road to salvation is co-operation for abundant living. Herein lies the present and the future of technical assistance. A helping hand to the weak from the strong, a liberal flow of knowledge from a well-developed country to an under-developed area, a free trade of understanding among people of varying cultures — these are the elements of the global strategy of technical assistance. The objective is not victory through destruction; the goal is shared well-being achieved through the magic touch of friendly collaboration. Technical assistance is nothing more than friendly collaboration for co-existence.

Imperialism is the one-way street to prosperity for the colonizer and the downward road to slavery of the colonized. This old-time imperialism is a vanishing phenomenon in the free world. Technical assistance has replaced it. Exploitation powered by greed of gain is now replaced by exploitation of the possibilities of exporting expert knowledge and sympathetic understanding. Technical assistance is the antithesis of imperialism in objectives and procedures. It wins support by a convincing demonstration of modern know-how applied in improving standards of living. In all fields where it operates, whether it be in health or industry, in education or government, the assisted nation co-operates with the assisting country not because it has to, but because it so desires such co-operation.

Korea stands as a challenge to the speed with which technical assistance can work out a machinery for co-operation in attaining a common well-being on earth. Technical assistance must accelerate its tempo. It must catch up with the forces of destruction unleashed by war. Pilot programmes must soon be replaced by widespread applications. Isolated trials must soon give way to bolder schemes of nation-wide implementation.

Unesco is well prepared to make its programme of technical assistance come to the aid of a world half-famished and more than one half illiterate. May it succeed in its role as a dispenser of technical ingenuity.

A NEW DEAL FOR THE WORLD'S ARID LANDS

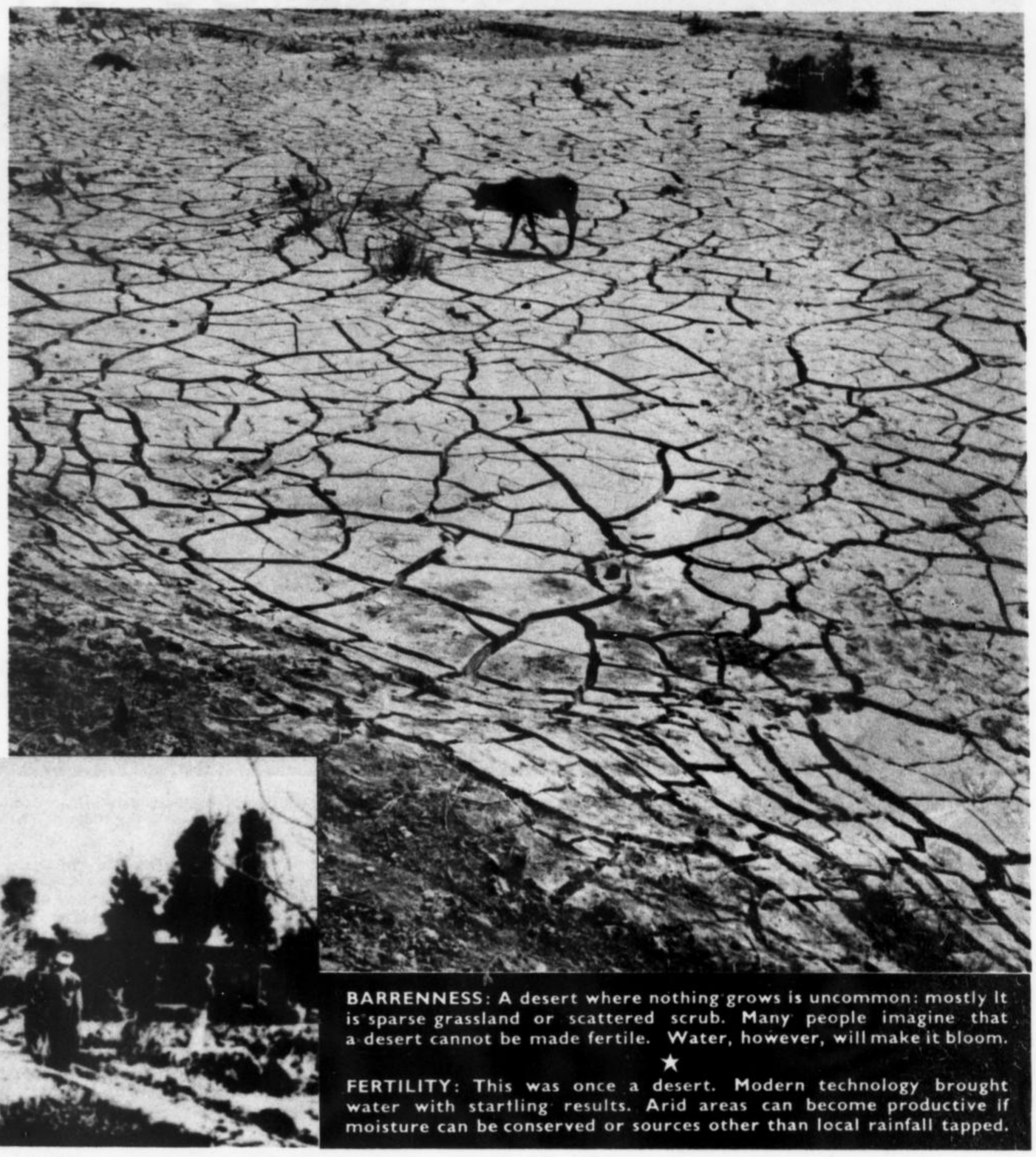
by Maurice GOLDSMITH

WE made a wilderness when we knew little of nature's laws. We plundered this planet, robbing the good earth of its fertility, destroying the forests, decimating wildlife—creating wilderness. Now—because there are about 50,000 new mouths to feed each day and because the pressure on good agricultural land is so great—we must restore the wilderness to fertility.

The task is great, because the arid and semi-arid regions of the world cover more than a quarter of the land surface. They range from deserts, homes of a few nomads, to populated areas where economic life is maintained only by the careful husbanding of resources like water.

The development of these different areas gives rise to problems which, scientifically and technically, are similar in many respects. International action is needed, and this is now forthcoming with the setting-up of Unesco's Advisory Committee on Arid Zone Research. The story of this great venture began in 1948 with a proposal from the Government of India to Unesco. The United Nations has since expressed full approval and its Specialized Agencies are working in close collaboration with Unesco.

At the recent first session of the Advisory Committee on Arid Zone Research in Algiers, scientists and engineers from seven countries outlined the beginnings of an international research programme. One project already in progress is the preparation of reviews of research on water flow, in rivers and underground, which has been carried out in the arid region. This is of key importance, for without water there is no life.



BARRENNESS: A desert where nothing grows is uncommon: mostly it is sparse grassland or scattered scrub. Many people imagine that a desert cannot be made fertile. Water, however, will make it bloom.

★

FERTILITY: This was once a desert. Modern technology brought water with startling results. Arid areas can become productive if moisture can be conserved or sources other than local rainfall tapped.

The Sahara is a typical desert of the arid zone. It is a place of intense sunlight, with strong wind, and little water. There are few clouds, and radiations from the sun and sky are intense. The great heat is absorbed by the rocks and sand, re-radiated and conducted into the air. The rise in temperature during the day increases the currents of air, causing sand and dust to be picked up and transported.

Man cannot live for long in the desert without water. Two-thirds of the human body is water, and to live we must maintain that level. Desert conditions promote rapid evaporation of sweat (which is water taken from the body.)

As the American physiologist, Dr. E.F. Adolph, points out: " Sweat evaporates in the desert before it becomes visible: still invisible, it may be disappearing at the rate of two or three pounds an hour. Not only for comfort, but also from gripping need, must this water be replaced as rapidly as it is lost. To continue without water in the desert is as impossible as to be without oxygen in the atmosphere." (One minute without oxygen is equivalent to about four hours in the heat and sun without water.)

Unesco is making plans for a conference on the "Hydrology of the Arid Zone with special reference to Underground Water." (Hydrology is explained in the article below).

Another project being undertaken is the preparation of homoclimatic maps to show which regions of the world have similar climates. When new agricultural methods are developed in one part of the world, these maps indicate other regions where they may be applied.

Arid regions may differ climatically and ecologically, because annual rainfall may be more or less heavy and may be associated with widely varying heat conditions, resulting in a series of type of climates, each with its own special features. The arid regions of North Africa, for example, are really comparable only to some parts of California and Australia.

There are a number of research institutes working on the problems of arid regions, and a directory of these is to be compiled. In addition, Unesco is to form panels of world experts on the hydrology, biology and climatology of arid and semi-arid regions.

This programme of research gives grounds for hope. As Mr. Torres Bodet, Unesco's Director-General, has said : "'with new scientific discoveries, we shall soon be able to turn these wastes into a smiling home for the steadily increasing population of the world."

ASPECTS OF SCIENCE

THE WATERS BENEATH

by Ira M. Freeman

NOT apparent to the eye, but none the less present and vitally important to the welfare of man, are the vast seas of underground water found in almost all areas of the world, including deserts. The volume of water below the ground often is, in fact, many times the maximum capacity of all available surface reservoirs, both natural and artificial.

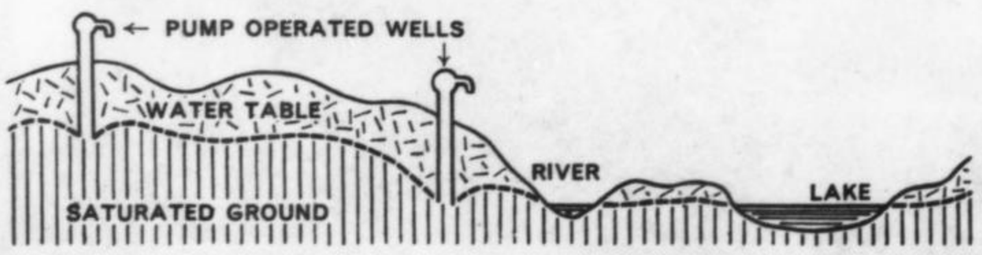
What geologists call *ground water* is the water collecting in and between the porous and permeable rocks of the earth's surface. These great pools are the sources on which we draw when tapping wells and springs for the large quantities of water needed by industry—chemical plants, steel mills, power plants—as well as for irrigation and for domestic supply. It is understandable, then, that the state of our reserves of underground water is a matter of great importance, not only in the arid regions but in many other parts of the world where enormous increases in the rate of use in recent years have seriously threatened to deplete the supply.

The branch of science dealing with water, its properties and its distribution over the surface of the earth is formally called *hydrology*. The beginnings of this study go back some two thousand years in history, when it became known that springs and rivers derive their water from rain and snow percolating through soil and rock and eventually coming out again at the surface of the land.

This idea was not generally accepted by scientists until nearly the end of the seventeenth century, when quantitative studies were made by English and French observers. They measured and compared rainfall, the evaporation of water from lakes and seas, and the rate of discharge of rivers. Gradually there came to be recognized the existence of the *hydrologic cycle,* by which water is transported from the sea to the land and back to the sea.

Some details of what goes on beneath our feet may be seen schematically from the sketch below. The *water table* is the upper surface of completely water-soaked ground. Notice that it is not level, as water in an open pond would necessarily be, but is higher beneath the hills than in the valley. This is because there is a continual, but slow, sideward and downward flow of water as it filters through the rock, and the continuing replenishment of water seeping into the ground does not permit the water surface to attain its usual condition of balance along a level. Above the water table, the spaces between the rock and soil particles are not completely water-soaked.

If an ordinary well is to yield water, it must be dug to a point below the water table, and the water must be pumped to the surface. But sometimes drilling into the saturated zone between two impermeable layers of rock will produce a well from which the water may gush spontaneously and continuously. This is an *artesian well,* named for the province of Artois, in France, where the first wells of this kind were used early in the twelfth century. In places where the water table happens to meet the surface of the ground, the water may issue as a spring, and in some instances a marsh or a lake may form.



AN IDEALIZED CROSS-SECTION OF THE LAND, showing the water table in relation to the surface of the ground. The wells, which must be sunk to a point beneath the water table, lower its level in their immediate neighborhood. The position of the water table at a given place varies from time to time, depending upon supply and demand. It is usually lowest in the Autumn.

Despite the claims of "water diviners" who represent themselves as having a mysterious ability to locate water with no other equipment than a forked stick, prospecting for the hidden treasure of underground water is a complex, time-consuming and costly scientific occupation. The amounts of water entering the rock in a given region must be computed and other factors must be estimated. The physical nature of the rock must be studied, and its porosity, state of division and other properties must be examined. In recent years, geologists and hydrologists have had at their disposal certain indirect methods of getting the required information, such as electrical and radio-active means of locating, following and measuring the quantity of ground water.

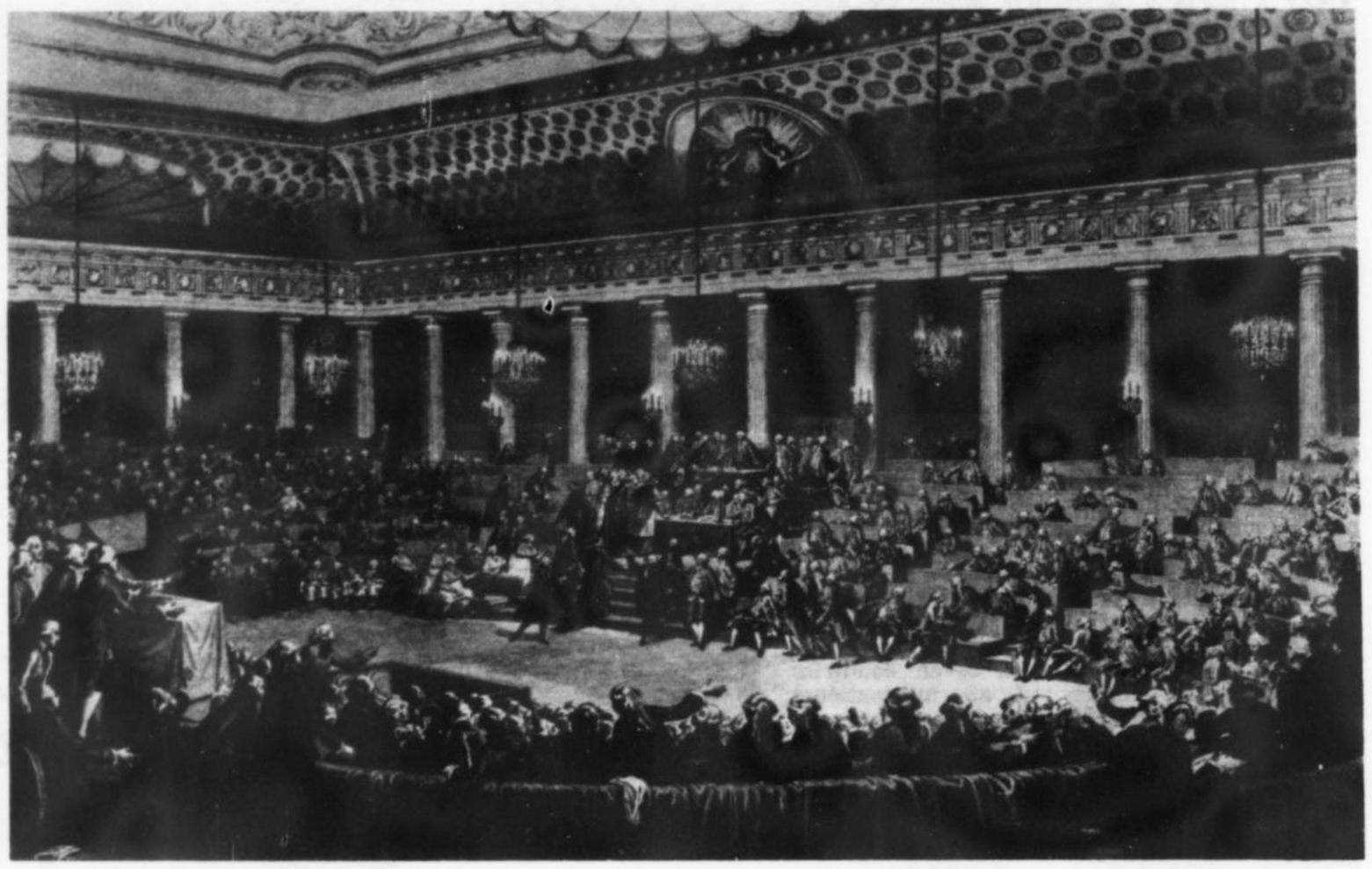
Recognition of the fact that ground water is one of the more important of our natural resources has been slow in developing. This has become a matter of deep concern, not only in arid countries but in those more richly endowed with water reserves. Fortunately, a number of governments have already taken steps to set up commissions and planning boards charged with studying ground water resources and undertaking additional research programmes in this field.

If you are interested in further reading material on underground water, write to the Division for the Popularization of Science, Unesco, 19, avenue Kleber, Paris (16e), France, requesting a free bibliography.

IN 1951
AS IN 1791

DESPITE THREATS TO PEACE, MEN STRIVE TO PROTECT THEIR SPIRITUAL HERITAGE

AS DID LE CHAPELIER Father Of Copyright



A HUMAN RIGHTS VICTORY: In France, the rights of authors were written into law during the Revolution. This was largely due to Le Chapelier brilliant lawyer and legislator, here pictured presiding over the National Assembly on August 4, 1789, when privileges were abolished.

by Maxime Clouzet

IF Rabelais, Shakespeare or Dante came back to earth today, they would be astounded to see the prominent place given to "copyright" in a Universal Declaration of Human Rights. For today, it is universally conceded that writers, composers and all creative artists are the spiritual masters of their works and are entitled to claim a just share of the revenue resulting from them.

But this right, which we now take for granted, is actually of comparatively recent origin. For centuries, the marvellous invention of printing enriched the publisher, or as he was then called, the bookseller. In France, under a special privilege from the King, he had practically a monopoly. The author had no such guarantee and once his work passed out of his hands, it was lost to him. All that remained was the hollow satisfaction of renown, eked out by the capricious bounty of a patron of the arts—mostly, of little account.

An Engaging Personality

IT was not until the French Revolution that a new right, whose conception was, from the first, very clear, was written into law.

"The most sacred, the most unassailable and, if I may say so, the most personal of all rights of ownership is creative work, the fruit of a writer's thoughts. It is therefore most right and just that the men who cultivate the domain of thought should reap some harvest from their labours. During their life and for some years after their death, no one should be able, without their consent, to dispose of the product of their genius."

This clear and forceful statement was made by Isaac-Guy Le Chapelier, in the Constituent Assembly, during the memorable session of July 21, 1791.

Unquestionably an engaging personality, this Breton lawyer was somewhat maliciously described in a contemporary newspaper as "fond of gaming and women, elegantly dressed, always well curled and powdered." Yet, his face was coarse: yellow complexion, cynical mouth and an air of cunning . The true worth of the man was perhaps only revealed in his high, noble brow. Obstinate, energetic, clever, a marvellous extempore speaker, he quickly achieved political fame. It was he who presided over the National Assembly debates on the famous night of August 4, 1789. It was he who was responsible for the formation of the National Guard, sounded the death-knell of the "corporations" and caused the abolition of the laws governing the unequal division of legacies. But, this untiring legislator and persuasive *rapporteur* was also a man of culture. In the salon of Condorcet, "the last of the philosophers" — that famous European salon where contemporary thought fermented and took form—Le Chapelier was a brilliant figure. He expounded his ideas in a periodical of that time, the *Bibliothèque de l'Homme public*. Writer and orator, friend of the arts, he quickly became an ardent supporter of the petition presented by Parisian playwrights.

Authors of tragedies and comedies complained that a royal privilege "had established a single theatre in the Capital where everyone was forced to present their works". Henceforth they would no longer tolerate that actors "should be the sole possessors of masterpieces for which the French stage was illustrious".

His Finest Hour

LE CHAPELIER took up their cause. On the Parliamentary tribune at this time, defending authors' rights, he knew his finest hour To help win his case, he first refuted Rousseau's diatribe against the immorality of theatrical performances. Down with privilege, relic of princely favours, and barrier to the advance of liberty! All this must be replaced by a right recognizing the author as sole owner of his works.

The law was passed unanimously and received the commendation of Mirabeau. Playwrights were granted the rights of literary ownership for the first time. The law set forth that engraved or printed dramatic works should not be reproduced without the "formal and written" consent of the author, or without that of his heirs for a period of five years after his death. Creditors of theatre producers should not be allowed to seize the remuneration that justly belonged to the author.

Set down in the faded yellow leaves of the *Moniteur Universel* this small text defies oblivion and remains to the lasting honour of its originator. It prepared the way for a legislation which has in the last 150 years spread through Europe and the world.

The question of copyright had certainly aroused much interest at that time. Since the beginning of the 18th century a certain measure of protection had been accorded to English authors by the Statute of Anne, entitled " An act for the encouragement of learning by vesting the copies of printed books in the authors or purchases of such copies during times therein mentioned". In America, between the years 1783 and 1786, ten of the thirteen original states had proclaimed in their legislation their desire to encourage learning for the public benefit, coupled with provisions stressing the author's interest, several States declaring that there was "no property more peculiarly a man's own than that which is produced by the labour of his mind". But these provisions did not have such a widespread influence on other countries as the French law.

In France, the date July 21, 1791, was an important one. Tempestuous days followed the flight to Varennes. Louis XVI was brought back to Paris, "a humiliated captive", to the consternation of some and the anger of others. After a thousand years of monarchy the throne was tottering. Excitement and unrest swept Paris and the provinces. At the Champ de Mars, the National Guard fired on the people; the dead littered the steps of the national altar. Despite these conditions, the promulgation of laws continued without respite. The members of the Constituent Assembly faced up to all threats. They recognized the Navy and Treasury, debated the fate of the King and, not least of all, took steps to protect Racine's successors.

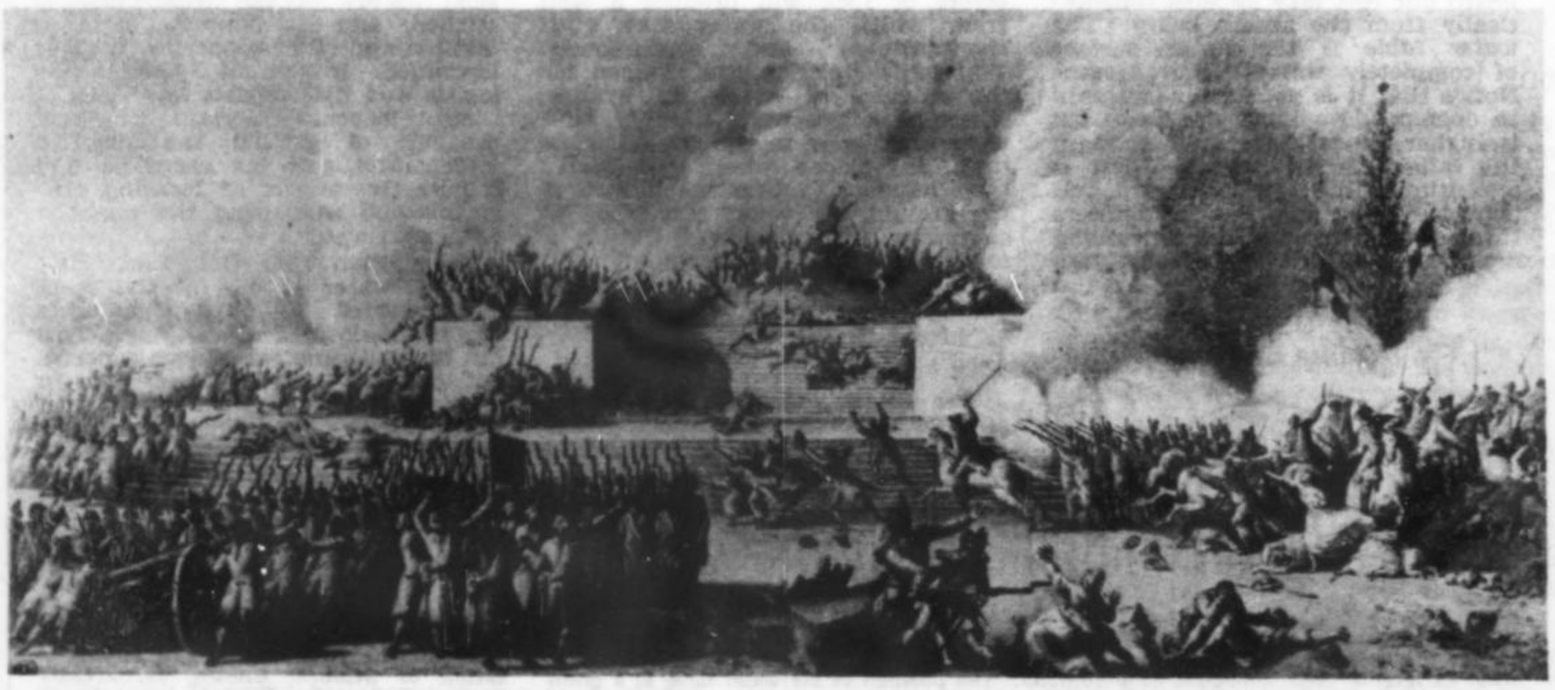
The Foundation

TWO years later—in July 1793—the Convention suffered the full force of the tempest. Insurrection broke out in sixty départements. The Vendéens marched on Tours. The Coalition armies invaded the North and the East. Condé, Valenciennes, and Bellegarde fell to the enemy. In Paris, Marat was assassinated. The royalists schemed and plotted. To cope with the desperate food shortage, the Committee of Public Safety imposed the death penalty on anyone caught hoarding and speculating. At the height of the crisis, the members of the Convention were to forget everything—civil war, defeat, and the gust of anguish and rage sweeping Paris—in order to resume their debate on copyright. Extending to all literary and artistic productions the law of 1791, they decided on July 19 and 24 to recognize "the exclusive right of authors of writings of all kinds, composers of music, painters and designers, to sell, cause to be sold, distribute or cede the ownership of their works". The right of heirs was extended to cover a period of ten years following the author's death. Here, stated in clear, precise terms, was the foundation of subsequent laws.

A Symbolic Coincidence

THE leaders of France were constantly in danger at that moment. Le Chapelier, like many others, perished on the scaffold. "At a time when the history of several centuries was being re-made, they felt their days were numbered" said Michelet. "All these men, at such an hour, were vibrantly alive. Self-interest, ambition, all the human passions were in play. Most powerful of them all was love in all its many manifestations: love of ideas, love of country, love of the human race. What gigantic labours, burning debates, events crowding on events, what swift reforms, what cataclysmic changes! What tremendous enthusiasm!"

And after all, is our present era so different? In this year of 1951, copyright is again being discussed—a symbolic coincidence. A universal convention is being formulated in the international councils to give copyright its full effect. Unesco is contributing in this effort.



THREATS FROM WITHOUT - UNREST WITHIN: In July 1791, Austria and Prussia threatened to invade France. Unrest swept Paris and fighting broke out at the Champ de Mars (above). Despite such conditions, the Constituent Assembly continued its work, and only four days after the riots it passed a law granting literary ownership to playwrights.

A WORLD CRUSADE

SWEEPING THE COBWEBS OUT OF OUR MUSEUMS

by Georges FRADIER

A TOWN I know is proud of its schools, colleges and teachers' training institutions. Yet in its museum, which should be such an important part of the educational system, it takes little pride. Housed in a dark and unattractive-looking building, the museum is open to the public twice a week, yet most people use it as a means of passing dull Sunday afternoons in winter.

The museum does not lack exhibits; on the contrary, it overflows with masterpieces representing three centuries of craftsmanship, a fine natural history collection bequeathed by an old scholar, African and Chinese art treasures brought back by an explorer of former times, and canvasses and drawings by 17th and 18th century masters — all mixed up in dusty rooms, inaccessible and useless.

Meanwhile, in the schools and colleges, teachers wish they could show their pupils real works of art, masks, vases and authentic ivories; they would like to have samples of rock for the geology lectures, stone tools for history lessons. All these things are to be found in the local museum — along with many other treasures — but the teachers will perhaps never know this.

Thousands of towns, although provided with museums, are yet deprived of them in this way, for those which aim to attract the public are still rare, except possibly in the United States.

It is true that hardly a hundred years ago even the most famous museums were content simply to amass and then jealously guard treasures from all lands, but they have since made enormous progress as science in general has come to realize its social responsibilities.

Only the most modern, in certain large cities have, however, managed to adapt themselves to perform a truly educational mission among people of all ages and cultures.

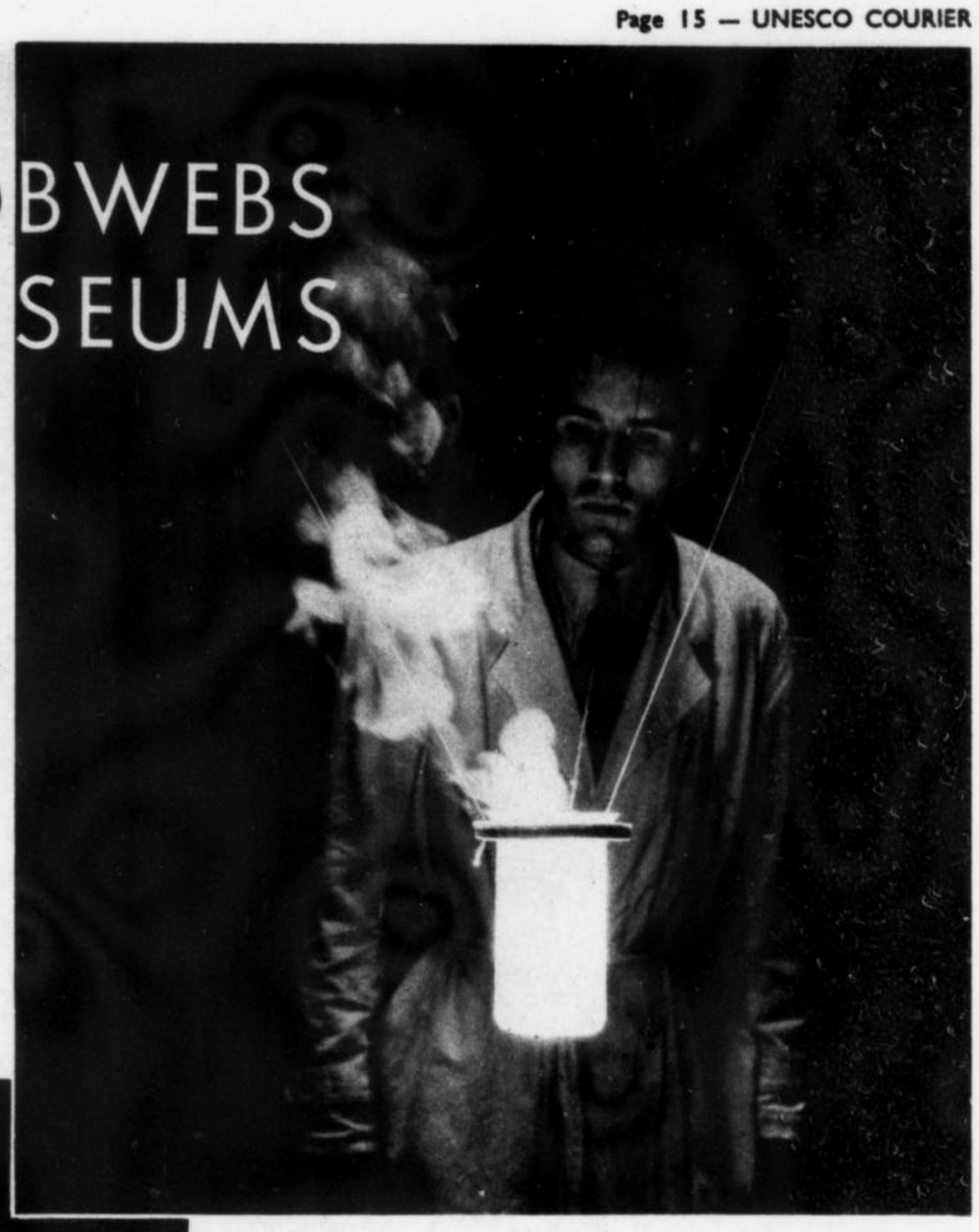
All Can Help

A PARIS professor has declared that he would not know how "to give his pupils a satisfactory cultural background with an insight into the lessons of the past supplemented by a proper technical education", without taking them on carefully-prepared visits to art, science and history museums.

"Let us hope for an increase in the number of museums like the Palais de la Découverte, the Musée de l'Homme and the Musée des Colonies", he says. "These, in my opinion, represent the prototype of the modern museum".

All museums, no matter what their origins or specialities, can serve education and collaborate more and more actively with schools. Those who run them are no longer simply "curators" and they would undoubtedly agree with one of their predecessors, Sir Henry Cole, who wrote what in 1874 was then a bold statement :

"If you wish your schools of science and art to be effective, your health, the air, and your food to be wholesome, your life to be long, your manufactures to improve, and your people to be civilized, you must have museums of science and art to illustrate the principles of life, health, nature, science, art and beauty". Such museums must indeed be set up, and luckily the models exist.



Sorcery? No, just one of the striking demonstrations in physics which children can see at the Palais de la Découverte, in Paris. Here, they find living illustrations of what they have learned in their books and lessons.

How human life begins. This remarkable plexiglass model, showing the final stage of pregnancy, is part of the "Miracle of Growth" exhibition presented at the Museum of Science and Industry, Chicago.

The Paris professor referred to above picked out as his preference among the "prototypes" the Palais de la Découverte. This was founded in 1937, and has become one of the world's finest examples in scientific museology.

All who visit the Palais do not come out with a bent for astronomy or medicine. But in the words of the well-known scientist Louis de Broglie : "Schoolchildren and students find magnificently real and living illustrations of what they have learned in their books and lessons".

He adds : "It may be that when a young man comes to realize the beauty of science and its role in the future of man, he will decide to concentrate his efforts and perhaps his whole life to it". Numerous schoolteachers have declared that apparently mediocre classes are amazingly transformed after a few visits to the Palais de la Découverte.

An International Plan

IT was in the Palais — or at least in the office of M. André Léveillé, its director — that the "Museums Crusade" was started. A preliminary meeting of teachers had recognized that the ideas and methods used in his museum should be made available to all France's schools and colleges and that a plan to enable all museums to participate actively in educational programmes be drawn up.

But this is not meant only for France. From the beginning, the leaders of the Crusade conceived it as an international one; and, with this aim in mind, they approached Unesco.

As a result the American Museums Association is undertaking the same programme as the Paris museums. Its leaders are soon to meet some of their European colleagues to study the best ways to reach their common goal — the widest collaboration between museums and schools.

In the Netherlands, the Ministry of Education has ordered a special commission to study how museum resources can be put more fully at the disposal of youth and the people generally. These meetings, inquiries and studies are being followed closely by Unesco.

Meanwhile, the Crusade is gathering momentum. Unesco hopes soon to bring together at an international seminar, museum experts, educators, artists and scientists who can help extend this scheme to many other countries.

It is thanks to such a crusade that the most humble museums, as well as the richest, can render the service they owe to the community.

No longer will there be museums whose collections of useless bric-à-brac slowly waste away in deserted show cases. Instead, students, teachers and apprentices will go freely there at any hour of the day, alone or in groups, to find the indispensable concrete examples and tangible proofs.

Walking round the National Museum at Ottawa, young schoolchildren learn at first hand to appreciate examples of early Indian art.

There are no "Please do not touch" signs in the University of Philadelphia Museum. Here a class not only sees, but tries out some ancient and primitive musical instruments.

"Going up". While father blows hard into the tube, his son watches the needle rising on the Vitalometer, an instrument in the Cleveland Health Museum which measures lung capacity.

PARIS
IS 2,000
YEARS OLD

UNESCO
6th GENERAL
CONFERENCE

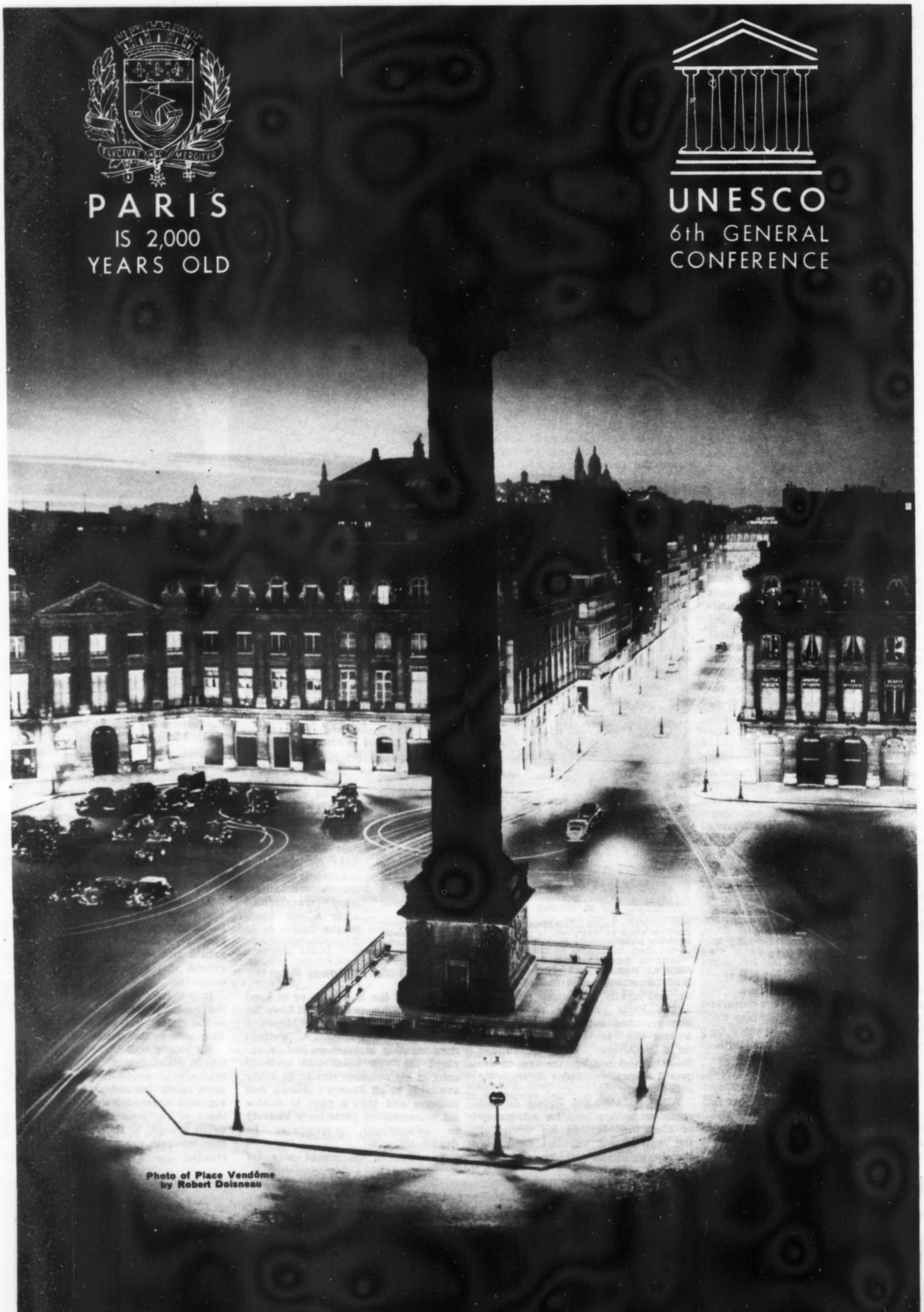


Photo of Place Vendôme
by Robert Doisneau

IT is not the biggest city in the world, nor the oldest, nor the richest. It is not necessarily the most beautiful. Nevertheless, the whole world feels a singular fondness for Paris, and every year for ten centuries visitors of all races and tongues have proclaimed her the capital of the world — even when she was little more than the chief town of a province. Historians explain the amazing good fortunes of this Gallic village in terms of its situation in the best land of Europe, at the cross-roads of the big trade routes, and because men invested her with royal honours and political power. But it is not the grain of the Ile de France, nor the shipping on the Seine, nor the king's knights, which have made the true grandeur of Paris. Her glory is perhaps that of her monuments and museums; it is above all that of artists, thinkers and writers. More than monarchs and merchants, it was the leaders of the University of Paris that first made this city a capital. Yet the historians are right about those cross-roads. Endowed with no natural defences, Paris has alway been an open city, ready to let in new ideas — and she has grown in proportion to the welcome she has given them. Architects, painters and sculptors, novelists and men of the theatre, physicians, physicists and mathematicians have been more numerous within her walls than in any other city. They come from every province, from every European country, from every continent. They arrive to attend her famous schools; they often remain, because of the liberty they find. There is no tradition that Paris is more proud of than her freedom. If it is true that the arts, sciences and ideas develop prodigiously in Paris, it is because its people have led the way in the fight for independence and rights. As their patron, the Parisians have chosen a saint who in former days delivered them from slavery. The significant dates in the city's history are linked whith the development of universal liberty. Paris may continue to be called the city of elegance and joie de vivre, but for millions she is above all the Capital of Human Rights.